



PATENT
Customer No. 22,852
Attorney Docket No. 08874.0001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	
Jonathan BUCKLEY et al.)	Group Art Unit: 2635
)	
Application No.: 09/270,461)	Examiner: Matsuichiro SHIMIZU
)	
Filed: March 15, 1999)	
)	
For: ELECTROMECHANICAL SAFETY)	Confirmation No.: 2532
SYSTEM FOR A FIREARM)	

Attention: Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF UNDER BOARD RULE 41.37

This is an Appeal from the April 23, 2004 final rejection of claims 25-29. A Notice of Appeal was filed on October 25, 2004. In support of the Appeal, and in accordance with Board Rule 41.37, Appellants hereby submit their Appeal Brief.

Appellants have enclosed a check for the fee of \$250.00 required under 37 C.F.R. § 41.20(b)(2). Appellants have also enclosed a Petition for a three-month extension of time, together with a check for the fee of \$510.00 required under 37 C.F.R. § 1.17(a)(2).

If any additional fees are required or if the enclosed payment is insufficient, Appellants request that the required fees be charged to Deposit Account No. 06-0916.

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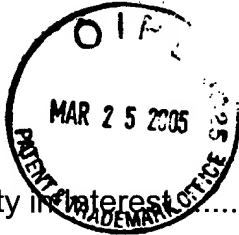


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Appendix

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Real Party in Interest

The inventors, Jonathan D. Buckley and Tony A. Hancock, are the real parties in interest.

Related Appeals and Interferences

There are no other appeals or interferences, of which Appellants or Appellants' legal representative are aware, that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

All the pending claims, claims 25-29, stand rejected. The rejections of each of these claims are being appealed. Claims 1-24 have been cancelled.

Status of Amendments

No amendments have been filed subsequent to the final rejection.

Summary of Claimed Subject Matter

The invention is a locking mechanism for a firearm, such as a handgun, that prevents unauthorized use. The invention lies in the use of a geared motor to drive a pin into a notch in the trigger and thereby block movement of the trigger. This invention will reduce accidental shootings, discourage theft of firearms, and prevent unauthorized use of firearms in situations where such use poses a great threat to public safety (for example, unauthorized use of firearms carried by commercial airline pilots).

The claims recite a locking mechanism comprising an identification unit (see keypad 22 shown in Fig. 2 and described on page 10); a control unit to compare an inputted identification code with a stored identification code (see microprocessor 23 shown in Fig. 3 and described on pages 18-19); an actuator device with a geared motor connected by a threaded spindle and nut connection to a movable element that locks the trigger (see electromechanical blocking assembly 38, including motor 40, gear train 42, output shaft 44, threaded shaft coupler 46, traveling box 48, and pin 54 shown in Fig. 2 and described on pages 11-12); a spring engaging the pin (see spring 52 shown in Fig. 4 and described on pages 13-14); a battery (see battery 62 shown in Fig. 3 and described on page 6); and display elements to indicate the operating status of the locking mechanism (see battery indicator 26, fire indicator 28, and safe indicator 30 shown in Fig. 2 and described on page 11). In the locked position, the locking mechanism engages a notch or aperture in the trigger (see pin 54 and notches 54a and 54b in trigger 58 shown in Figs. 2 and 5 and described on page 12).

Grounds of Rejection

Appellants prosecuted the pending application for four years before the Examiner cited U.S. Patent No. 6,293,039 ("the '039 patent"). In response, Appellants cancelled their pending claims, copied claims (claims 25-29) from the '039 patent, and requested an interference. Instead, the Examiner rejected the copied claims on three grounds:

I. Claims 25-29 were rejected under 35 U.S.C. § 112, first paragraph, on the ground that claim 25, upon which claims 26-29 depend, contains subject matter that is not described in the specification;

II. Claims 25-29 were rejected under 35 U.S.C. § 135(b) on the ground that the claims were not made prior to one year from the issue date of the '039 patent; and

III. Claims 25-29 were rejected under 35 U.S.C. § 102(e) on the ground that they are anticipated by the '039 patent.

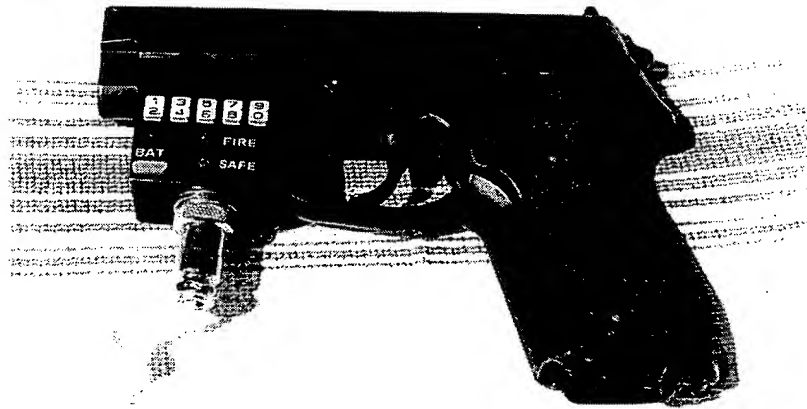
Argument

Appellants sought an interference with the '039 patent because it not only claims the same invention as Appellants, it describes and claims a virtual copy of a prototype that Appellants designed and later disclosed to the inventor named in the '039 patent, Rudolf Fuchs, and the assignee named in the patent, SIG Arms International ("SIG").

In February 1997, SIG engaged Appellants to design a locking system for handguns. In June 1997, Appellants submitted drawings to Mr. Fuchs and SIG and, in August 1997, demonstrated a working prototype for Mr. Fuchs and SIG. In January 1998, Mr. Fuchs returned Appellants' drawings and other documents, and in June 1998, Mr. Fuchs returned the prototype. In March 1998, Mr. Fuchs and SIG filed a German patent application, and the U.S. counterpart issued as the '039 patent.

In their request for an interference, Appellants submitted detailed evidence substantiating their construction of the prototype and their disclosure of the prototype to Mr. Fuchs and SIG (see Evidence App.). But a simple comparison of Appellants' prototype to the embodiment shown in Fig. 1 of the '039 patent leaves no doubt it was Appellants who invented the locking system disclosed and claimed there.

Appellants' prototype demonstrated for Mr. Fuchs and SIG is pictured below:



One of the drawings Appellants sent to Mr. Fuchs and SIG is pictured below:

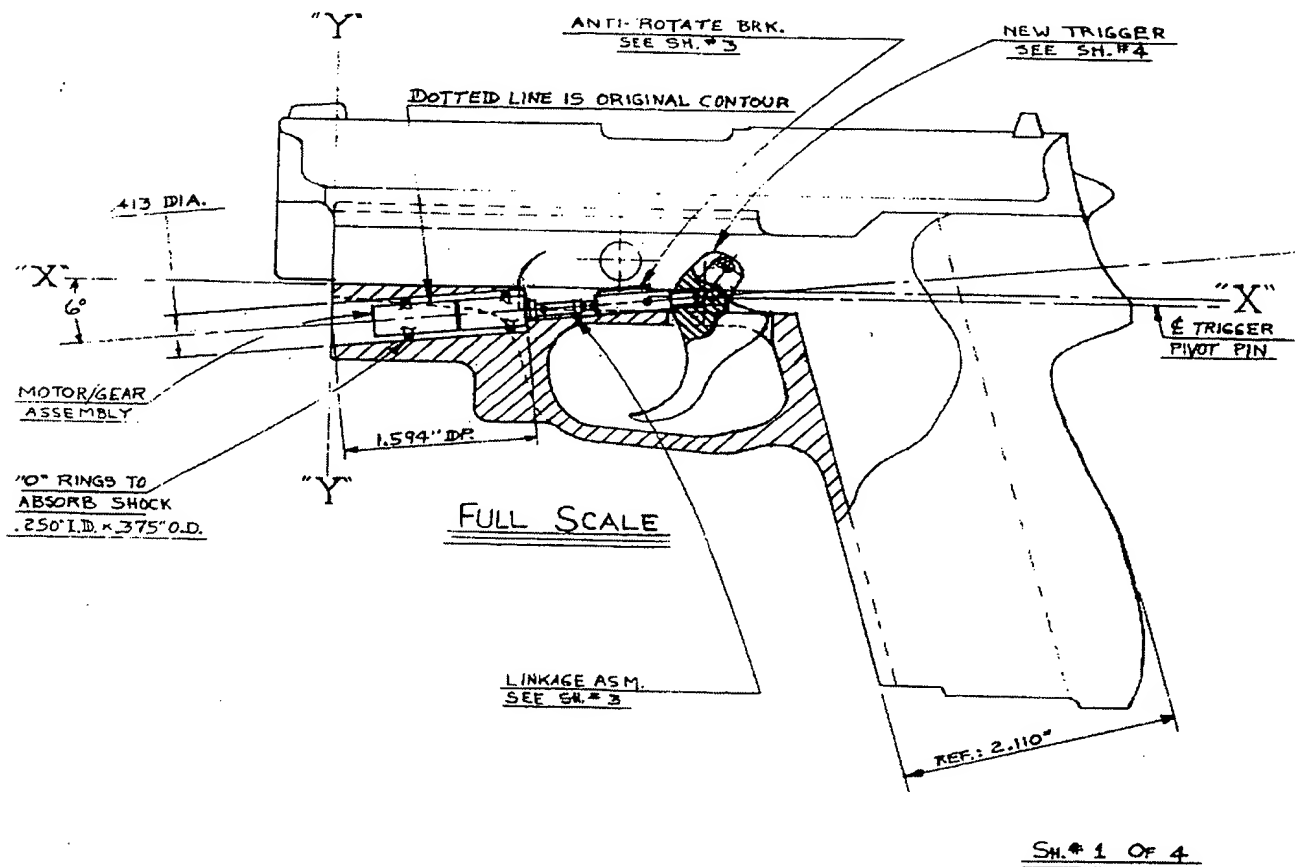
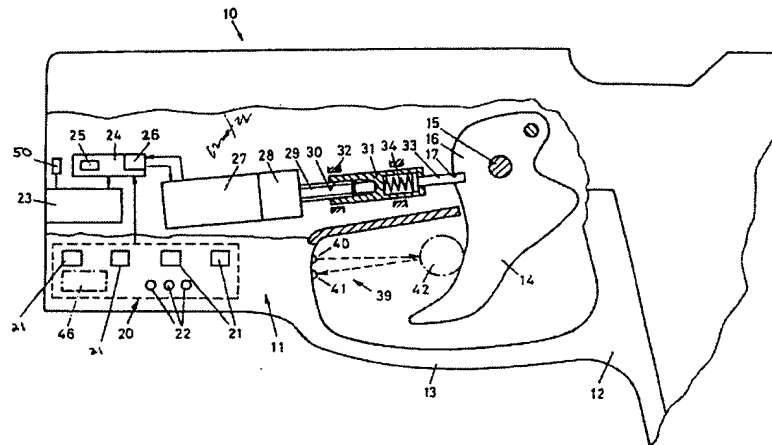


Fig. 1 from the '039 patent, pictured below, is virtually identical:



From this comparison, one can readily see that the embodiment disclosed in the '039 patent mirrors the prototype that Appellants disclosed to Mr. Fuchs and SIG.

The keypad assembly (20) disclosed and claimed in the '039 patent was present in Appellants' prototype. As in Appellants' prototype, Fig. 1 of the '039 patent shows a plurality of keys (21) to enter an identification code. In both cases, each key represents more than one number and is pressed multiple times to enter the proper number. And just like Appellants' prototype, the keypad includes diodes that indicate when the gun is locked, when the gun is unlocked, and when the battery needs to be replaced (22).

The locking mechanism disclosed and claimed in the '039 patent was a carbon copy of Appellants' drawings. As in Appellants' drawing shown above, Fig. 1 of the '039 patent shows a geared motor (27) linked to a locking element (33) that engages a notch (17) in the trigger (16). And just like a second drawing that Appellants submitted to SIG with the drawing shown, Fig. 1 of the '039 patent shows a threaded linkage assembly (29 and 30) and a spring (34) that engages the locking element (33).

Likewise, the embodiment shown in Fig. 1 of the '039 patent is virtually identical to Appellants' embodiment in the pending application, as illustrated by Fig. 2 of Appellants' application:

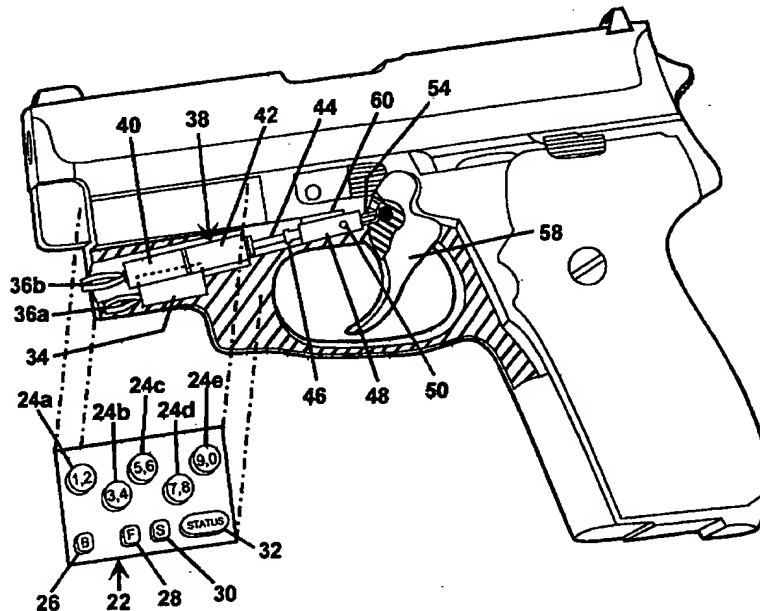


Fig. 2

In both the '039 patent and Appellants' application, the locking mechanism comprises a motor (27 and 40, respectively); a gear train (28 and 42, respectively); an output shaft (29 and 44, respectively); a traveling box (31 and 48, respectively); a spring (34 and 52, respectively); and a pin (33 and 54, respectively). In both cases, the gun is locked by the pin entering an aperture in the trigger. And in both cases, an electronic keypad, with a microprocessor, is used to input an identification code to unlock the gun.

Appellants had no knowledge that Mr. Fuchs and SIG filed a patent application until February 2003, when the Examiners in the pending case first cited the '039 patent. The '039 patent had issued 18 months earlier, but the Examiners had not previously identified it as a reference. Appellants' application and the application for the

'039 patent were copending for 2½ years, but the U.S. Patent and Trademark Office ("PTO") never notified Appellants of the interfering subject matter. Those failures have prejudiced Appellants because they did not have a chance to copy the '039 patent claims until more than a year after it issued.

Those failures occurred because the Patent Office examined the '039 patent in Group 3640, the group that examines firearms, but examined the pending application in Group 2630, a Communications group. Indeed, it was an Examiner from Group 3640 who brought the '039 patent to the attention of the Examiners of this application. That occurred following an interview in which the Examiners in Group 2630 agreed that the then-pending claims were patentable over the cited prior art, but indicated they wanted input from the group that actually examines firearms. An Examiner in Group 3640 promptly identified the '039 patent, and the claims of the pending application were then rejected. Thus, it seems clear that the '039 patent would have been cited much earlier if the pending application had been examined in the proper group. See M.P.E.P. § 2306 at 12 (8th Ed., Rev. 2, May 2004).

I. The 35 U.S.C. § 112, First Paragraph, Rejection

The Examiner contends that the specification does not contain a written description for the limitation "the control unit configured to compare the signal inputted into the identification unit with stored identification code." According to the Examiner, "there is no indication of comparing inputted signal into [the] ID unit with stored ID code."

The originally filed disclosure, however, fully supports this limitation. The specification discloses a keypad unit with a microprocessor (i.e., the "control unit") and

states that “the user would enter a personal identification just as the user would for an ATM machine” (page 10). The specification explains that the user unlocks the firearm by selecting the “correct” identification code (pages 15-16). Recognizing an inputted code as “correct” inherently requires comparing the inputted code with a stored code. In addition, original claim 3 recites “at least one microprocessor responsive to correct selection of said selection buttons.” Here again, a “microprocessor responsive to correct selection of said selection buttons” inherently requires comparing the inputted code to a stored code.

Thus, this limitation is inherent in the specification’s disclosures, and one skilled in the art would recognize that the specification reasonably conveys the step of comparing an inputted signal with a stored ID code. As a result, the specification fully complies with the requirements of 35 U.S.C. § 112, first paragraph.

II. The 35 U.S.C. § 135(b) Rejections

An error common to all the 35 U.S.C. § 135(b) rejections is the Examiner’s failure to apply the proper test for compliance with the statute. In each rejection, the Examiner contends that certain elements in the pending claims “are not the same” as various elements in the original claims. However, to establish entitlement to an earlier filing date of pre-existing claims for purposes of the one-year bar of 35 U.S.C. § 135(b), a party need only show that “all *material* limitations in the copied claim are present in, or necessarily result from, the limitations of the prior claims.” *In re Berger*, 279 F.3d 975, 982 (Fed. Cir. 2002) (emphasis added).

The Examiner made an additional error by failing to construe Appellants’ original claims with means-plus-function limitations in view of the structure disclosed in the

specification as required by 35 U.S.C. § 112, sixth paragraph. In many cases, that structure is identical to the limitations present in the copied '039 patent claims.

A. The Examiner's Contention That a "Pistol" Is Narrower Than a "Firearm"

On page 4 of the Final Office Action, the Examiner contends that the term "a pistol" (claim 1 of the '039 patent) is narrower than the term "firearm" recited in claim 1 of Appellants' application.

These terms appear in claim 1 of the '039 patent (pending claim 25) and in claim 1 of Appellants' application in the following claim limitations:

U.S. Patent No. 6,293,039 B1: claim 1	Application No. 09/270,461: claim 1
A pistol having a locking mechanism configured to lock a trigger mechanism of the pistol if an attempt is made by an unauthorized person to fire the pistol, the locking mechanism comprising:	In combination: a firearm;

The term "pistol" appears in the preamble of the '039 patent, is not required to give "life, meaning, and vitality" to the claim, and should not be construed as a limitation. See, e.g., *Catalina Mktg. Int'l, Inc. v Coolsavings.com, Inc.*, 289 F.3d 801, 809, 62 USPQ2d 1781, 1785 (Fed. Cir. 2002) (stating that "a preamble generally is not limiting when the claim body describes a structurally complete invention such that deletion of the preamble does not affect the structure . . . of the claimed invention"). Here, the body of the claim describes a structurally complete invention (a locking mechanism for a gun having a trigger). In any event, for purposes of the invention, there is no "material" difference between a "pistol" and a "firearm," as required by *In re Berger*, 279 F.3d at 982. No prior art was distinguished during prosecution of the '039

patent on this ground, and the locking mechanism claimed in the patent could be used not only for pistols but also for any type of firearm with a trigger.

B. The Examiner's Contention That Inputting an ID Signal into an Identification Unit Is Broader Than Providing Selection Buttons for Enabling a Selection of a Series of Numbers in Sequence

On page 4 of the Final Office Action, the Examiner contends that the phrase "ID signal inputted into the identification unit" (claim 1 of the '039 patent) is broader than the phrase "selection buttons for enabling selection of a series of numbers in sequence" recited in claim 3 of Appellants' application.

These terms appear in claim 1 of the '039 patent (pending claim 25) and claim 3 of Appellants' application in the following claim limitations:

U.S. Patent No. 6,293,039 B1: claim 1	Application No. 09/270,461: claim 3
an identification unit configured to detect an identification signal inputted into the identification unit;	said keyboard assembly includes: selection buttons for enabling selection of a series of numbers in sequence;

The Examiner admits that claim 1 of the '039 patent is broader than claim 3 of Appellants' original application. In other words, claim 3 falls within the scope of claim 1 of the '039 patent. Stated another way, the copied limitation "necessarily results" from claim 3 of Appellants' original application. In addition, claim 4 of the '039 patent ("[t]he pistol as claimed in claim 1, wherein the identification unit comprises a keypad for the input of the code") is virtually identical to claim 3 of Appellants' original application.

C. The Examiner's Contention That "[a] Control Unit Configured to Compare the Signal Inputted into the Identification Unit with a Stored Identification Code" Is Not the Same as a "Microprocessor Responsive to Correct Selection of Said Selection Buttons"

On page 4 of the Final Office Action, the Examiner contends that "[a] control unit configured to compare the signal inputted into the identification unit with a stored identification code" (claim 1 of the '039 patent) is not the same as a "microprocessor responsive to correct selection of said selection buttons" (claim 3 of Appellants' application). In support of this contention, the Examiner argued that there is no indication in the patent claims that a microprocessor is used. *Id.* The Examiner also contends that there is no indication in the application claims that a comparison is made between inputted signals and a stored ID code.

These terms appear in claim 1 of the '039 patent (pending claim 25) and claim 3 of Appellants' application in the following claim limitations:

U.S. Patent No. 6,293,039 B1: claim 1	Application No. 09/270,461: claim 3
a control unit connected to the identification unit, the control unit configured to compare the signal inputted into the identification unit with a stored identification code;	said keyboard assembly includes: * * * and at least one microprocessor responsive to correct selection of said selection buttons to electrically connect said power supply means to said blocking means.

Here again, by the Examiner's own admission, the "control unit" of claim 1 of the '039 patent is broader than the "microprocessor" of claim 3 of the pending application. Indeed, the "control unit" disclosed in the '039 patent specification "has an electronic memory 25 which stores the code" and "compares the code that has just been inputted into the identification unit 20 with the stored code in the memory 25" (col. 2, lines 48-

52). This description is just another way to describe the “microprocessor responsive to correct selection of said selection buttons” recited in claim 3 of Appellants’ originally filed application. Thus, in this regard, claim 3 of Appellants’ original application falls within the scope of claim 1 of the ‘039 patent and “necessarily results” in the practice of that limitation from the copied claim.

As to the Examiner’s contention that the application claims do not require a comparison between inputted signals and a stored ID code, the application claims inherently require a comparison of inputted signals to a stored code as discussed above with reference to the Examiner’s rejection under 35 U.S.C. § 112, first paragraph. Otherwise, the microprocessor could not be “responsive to correct selection of the selection buttons.”

D. The Examiner’s Contention That “a Threaded Spindle and Nut Connection” Is Not the Same as “Threaded Output Shaft” and “Threaded Box” Because Claim 8 Was Not Dependent on Claim 7

On page 4 of the Final Office Action, the Examiner contends that “a threaded spindle and nut connection” (claim 1 of the ‘039 patent) is not the same as “threaded output shaft” (claim 7 of Appellants’ application) and “threaded box” (claim 8 of Appellants’ application) because claim 8 was not dependent on claim 7.

These terms appear in claim 1 of the ‘039 patent (pending claim 25) and claims 1, 4, 7, and 8 of Appellants’ application in the following claim limitations:

U.S. Patent No. 6,293,039 B1: claim 1	Application No. 09/270,461: claims 1, 4, 7, 8
<p>an actuator device including a geared motor connected to the control unit and connected by a threaded spindle and nut connection with a mechanical locking element which is movable between a locked position and an unlocked position, wherein in the locked position the locking element locks a trigger tongue of the pistol;</p>	<p>electromechanical apparatus including:</p> <p style="padding-left: 40px;">blocking means for blocking normal operation of said firearm; (claim 1)</p> <hr style="width: 20%; margin: 10px auto;"/> <p>said blocking means includes:</p> <p style="text-align: center;">* * *</p> <p style="padding-left: 40px;">a gear train driven by said motor when said motor is activated from said power supply means;</p> <p style="padding-left: 40px;">and axial moving means connected to said gear train, said axial moving means includes means for preventing rotation of said trigger of said firearm. (claim 4)</p> <hr style="width: 20%; margin: 10px auto;"/> <p>The combination according to claim 5 in which said gear train has a threaded output shaft of a sufficient length to axially move said pin. (claim 7)</p> <hr style="width: 20%; margin: 10px auto;"/> <p>The combination according to claim 5 in which said axial moving means includes:</p> <p style="padding-left: 40px;">a threaded box having a pin trapped therein; (claim 8)</p>

Claim 1 of Appellants' original application recites "blocking means for blocking normal operation of said firearm." This means-plus-function limitation must be construed to cover the corresponding structure disclosed in Appellants' specification. This "blocking means" includes "gear train 42, output shaft 44, and threaded shaft coupler 46" and also "traveling box 48" (page 13). Alternatively, "if the output shaft 44 (see Fig. 4) is of sufficient length and threaded, the threaded shaft coupler (46) would

not be needed” (page 13). Appellants’ specification goes on to explain that “the output shaft 44 (see Fig. 4), if threaded and long enough, or the threaded shaft coupler 46 (see Fig. 4), if not, is inserted inside a threaded channel (not shown) inside the traveling box 48 (see Fig 4)” (page 13). In other words, the “blocking means” of Appellants’ original claim 1 can be construed as including a “threaded output shaft” connected to a “threaded traveling box.” These are simply different words – the “treaded spindle and nut connection” claimed in the ‘039 patent; however, the structures are identical.

E. The Examiner’s Contention That “a Battery” Is Broader Than “an Expendable Battery”

On page 4 of the Final Office Action, the Examiner contends that “a battery” (claim 1 of the ‘039 patent) is broader than “an expendable battery” (claim 14 of Appellants’ application).

These terms appear in claim 1 of the ‘039 patent (pending claim 25) and claims 1 and 14 of Appellants’ application in the following claim limitations:

U.S. Patent No. 6,293,039 B1: claim 1	Application No. 09/270,461: claims 1, 14
a battery for supplying electrical power to the locking mechanism; and	electromechanical locking apparatus including <div style="text-align: center;">* * *</div> power supply means for supplying power (claim 1) <hr style="width: 20%; margin: 10px auto;"/> The combination according to claim 1 in which said power supply means includes an expendable battery. (claim 14)

Claim 1 of Appellants’ original application recites “power supply means for supplying power.” This means-plus-function limitation must be construed under

35 U.S.C. § 112, sixth paragraph, to cover the corresponding structure disclosed in Appellants' specification. And the structure disclosed in the specification corresponding to the power supply means is "battery 34" (page 11). In other words, the "power supply means" of Appellants' original claim 1 must be construed as a "battery," as claimed in the '039 patent.

Moreover, for purposes of the invention, there is no material difference between the "battery" recited in claim 2 of the '039 patent and the "expendable battery" recited in claim 14 of Appellants' original application. Either can supply the power needed to operate the locking mechanism. In addition, the term "expendable battery" falls within the scope of the term "battery." Thus, the copied limitation "necessarily results" from claim 14 of Appellants' original application.

F. The Examiner's Contention That "Notch" Is Not the Same as "Aperture"

On page 4 of the Final Office Action, the Examiner contends that "notch" (claim 2 of the '039 patent) is not the same as "aperture" (claim 5 of Appellants' application).

These terms appear in claim 2 of the '039 patent (pending claim 26) and claim 5 of Appellants' application in the following claim limitations:

U.S. Patent No. 6,293,039 B1: claim 2	Application No. 09/270,461: claim 5
A pistol as claimed in claim 1, wherein the locking mechanism is configured to engage a notch in the trigger tongue,	<p>The combination according to claim 4 in which:</p> <p>said trigger of said firearm has at least one aperture</p> <p>and said preventing means of said axial moving means includes a</p> <p>pin for disposition in said aperture in said trigger of said firearm when said axial moving means is activated to prevent rotation of said trigger of said firearm.</p>

At the outset, it bears emphasizing that this rejection applies only to pending claim 26, which corresponds to claim 2 of the '039 patent. None of the other pending claims include the term "notch."

As to claim 2, there is no "material" difference for purposes of the claimed invention between a "notch" and an "aperture," as required by *In re Berger*, 279 F.3d at 982. In both cases, this opening in the trigger serves as a receptacle for an insert that prevents rotation of the trigger. During the prosecution of the '039 patent, the "notch" limitation was not cited as a basis for patentability. And Appellants' specification refers to "notches" and "apertures" interchangeably. See original specification at 12 (identifying "notches" and "apertures" as reference numerals "56a" and "56b").

G. The Examiner's Contention That "Spring-Loaded" Is Narrower Than "Resilient Means"

On page 5 of the Final Office Action, the Examiner contends that "spring-loaded" (claim 2 of the '039 patent) is narrower than "resilient means" (claim 13 of Appellants' application).

These terms appear in claim 2 of the '039 patent (pending claim 25) and claim 8 of Appellants' application in the following claim limitations:

U.S. Patent No. 6,293,039 B1: claim 2	Application No. 09/270,461: claim 8
A pistol as claimed in claim 1, wherein the locking mechanism is configured to engage a notch in the trigger tongue, and wherein the locking element is guided for movement in a bolt and is spring-loaded.	The combination according to claim 5 in which said axial moving means includes: a threaded box having a pin trapped therein; and a resilient means exerting tension on said pin from its end closest to said gear train.

Appellants note at the outset that this rejection applies only to pending claim 26, which corresponds to claim 2 of the '039 patent. None of the other pending claims include the term "spring-loaded."

As to claim 2, the "resilient means" recited in claim 8 of Appellants' original application is a means-plus-function limitation that must be construed under 35 U.S.C. § 112, sixth paragraph, to cover the corresponding structure disclosed in Appellants' specification. The structure disclosed in the specification corresponding to the "resilient means" is "spring 52" (pages 13-14). As explained in Appellants' specification, "in the locking action, pin 54 (see Fig. 4) is pushed forward by the energy of a spring emerging partially out of the end of the traveling block 48 (see Fig. 4) and seats itself into the notch of aperture 54a or 54b (see Fig. 5) in the rotatable trigger 58 (see Fig. 5)" (Page 14.) In other words, the "resilient means" of Appellants' original claim 8 must be construed as a "spring," and the locking element ("pin" in Appellants' claim terminology) is "spring-loaded," as claimed in the '039 patent.

H. The Examiner's Contention That "a Plurality of Display Elements" Is Not Claimed in Appellants' Application

On page 5 of the Final Office Action, the Examiner contends that "a plurality of display elements" (claim 1 of the '039 patent) is not claimed in the application.

These terms appear in claim 1 of the '039 patent (pending claim 25) in the following claim limitation. They did not appear in any previously filed claims in the pending application.

U.S. Patent No. 6,293,039 B1: claim 1	Application No. 09/270,461
a plurality of display elements configured to display an operating status of the locking mechanism.	

The "plurality of display elements" in the '039 patent display "an operating status of the locking mechanism." The display elements disclosed in the '039 patent indicate when the gun is locked, when the gun is unlocked, and when the battery needs to be replaced. These display elements are disclosed in the pending application, but they were not previously recited in any claim because they are not material to the invention. Display elements indicating when the firearm is locked and when the battery is low are common in prior art electronic locking mechanisms. See, e.g., U.S. Patent No. 5,448,847 ("the '847 Patent").

The prosecution of the '039 patent confirms that the display element limitation is not material to the claimed invention. This limitation appeared in the claims of the '039 patent when the application was filed, and it was never argued to be a basis for patentability. In fact, the Examiner cited the '847 patent as evidence that the display elements were known in the prior art, and SIG did not argue otherwise. Instead, SIG

argued that the distinction over the prior art lay in the geared motor with a threaded spindle and nut connection.

Claim 1 of the '039 patent was never amended during prosecution, was rejected by the Examiner only once, and was distinguished over the prior art with only the following argument:

Claims 1, 2, 4, 7-9, 11 and 20 have been rejected as unpatentable over Teetzel (U.S. Patent No. 5,448,847) in view of Oncke et al. (U.S. Patent No. 5,022,175). As the Examiner has acknowledged, Teetzel does not disclose a drive means for the locking elements as being a geared motor with a threaded spindle and nut connection.

Neither does Oncke et al. . . . [T]here is no mechanical connection in Oncke et al. between a mechanical locking element and the geared motor, particularly not a spindle and nut connection as required by claim 1.

Oncke et al. only discloses the use of a geared motor. They do not, however, disclose the use of a spindle and nut connection between a gear motor and a mechanical locking element that is moveable between a locked position and an unlocked position.

Accordingly, claim 1 is not taught or suggested by the combination of Teetzel in view of Oncke et al. Claims 2-8 and 10-20, which are dependent upon claim 1, are therefore also patentable.

Thus, the "plurality of display elements configured to display an operating status of the locking mechanism" was disclosed in the prior art, was not the basis for patentability, and is not a material limitation, as required by *In re Berger*, 279 F.3d at 982.

I. The Examiner's Contention That None of the Limitations in Claims 27 and 29 Are Claimed in the Application

On page 5 of the Final Office Action, the Examiner contends that none of the limitations in claims 27 and 29 (claims 3 and 5 of the '039 patent) are claimed in the application.

These terms appear in claims 3 and 5 of the '039 patent (claims 27 and 29 of the pending application) and in claim 1 of Appellants' application in the following claim limitations:

U.S. Patent No. 6,293,039 B1: claim 3	Application No. 09/270,461: claim 1
A pistol as claimed in claim 1, wherein at least the greater portion of the locking mechanism is located in front of a trigger guard and below the barrel of the gun.	<p>electromechanical locking apparatus including:</p> <p>blocking means for blocking normal operation of said firearm;</p> <p>power supply means for supplying power;</p> <p>and power control means for controlling the supply of power to said blocking means from said power supply means to enable activation of said blocking means to prevent operation of said firearm.</p>
U.S. Patent No. 6,293,039 B1: claim 5	Application No. 09/270,461: claim 1
The pistol as claimed in claim 1, wherein the identification unit comprises a finger-print scanner.	<p>electromechanical locking apparatus including:</p> <p style="text-align: center;">* * *</p> <p>power control means for controlling the supply of power to said blocking means from said power supply means to enable activation of said blocking means to prevent operation of said firearm.</p>

Appellants note at the outset that this rejection applies only to pending claims 27 and 29, which correspond to claims 3 and 5 of the '039 patent. None of the other pending claims include these limitations.

As to claim 3 of the '039 patent, the blocking means, the power supply means, and the power control means recited in claim 1 of Appellants' original application make up the "locking mechanism." Because these elements are means-plus-function limitations, they must be construed under 35 U.S.C. § 112, sixth paragraph, to cover the corresponding structure disclosed in Appellants' specification. The structure disclosed in the specification corresponding to the limitations are located in front of the trigger guard and below the barrel of the gun. See Figs. 1 and 2. In other words, Appellants' original claim 1 must be construed as having a locking mechanism located in front of the trigger guard and below the barrel, as claimed in the '039 patent.

As to claim 5 of the '039 patent, the "power control means" recited in claim 1 of Appellants' original application is a means-plus-function limitation that must be construed to cover the corresponding structure disclosed in Appellants' specification. The structure disclosed in the specification corresponding to the "power control means" includes "a biometric device such as a fingerprint reader" (see page 17). In other words, the "power supply means" of Appellants' original claim 1 can be construed as a "finger-print scanner," as claimed in the '039 patent. Moreover, in an amendment filed on June 28, 2002 (less than a year after the '039 patent issued), Appellants added a claim that recited a "power control unit" comprising a "biometric device" (claim 21) and a claim that further recited a biometric device that is "a fingerprint reader" (claim 22).

J. The Examiner's Contention That "Keypad for the Input of the Code" Is Broader Than "Keypad . . . [to Select] Buttons for Enabling Selection of . . . Numbers in Sequence"

On page 5 of the Final Office Action, the Examiner contends that "keypad for the input of the code" (claim 4 of the '039 patent) is broader than "keypad . . . [to select] buttons for enabling selection of . . . numbers in sequence" (claim 3 of Appellants' application).

These terms appear in claim 4 of the '039 patent (pending claim 28) and claim 3 of Appellants' application in the following claim limitations:

U.S. Patent No. 6,293,039 B1: claim 4	Application No. 09/270,461: claim 3
The pistol as claimed in claim 1, wherein the identification unit comprises a keypad for the input of the code.	<p>The combination according to claim 2 in which:</p> <p>said operatively connecting means of said power control means includes a keypad assembly</p> <p>and said keypad assembly includes selection buttons for enabling selection of a series of numbers in sequence (claim 3)</p>

Appellants note at the outset that this rejection applies only to pending claim 28, which corresponds to claim 4 of the '039 patent. None of the other pending claims require a "keypad for the input of code."

The Examiner admits that claim 4 of the '039 patent is broader than claim 3 of Appellants' original application. In other words, claim 3 falls within the scope of claim 4 of the '039 patent. Stated another way, the copied limitation "necessarily results" from claim 4 of Appellants' original application. Moreover, there is no material difference for

purposes of the claimed invention between a “keypad for the input of code” and a “keypad . . . enabling selection of a series of numbers.”

III. The 35 U.S.C. § 102(e) Rejection

On pages 5-6 of the Final Office Action, the Examiner contends that claims 25-29 are anticipated under § 102(e) by the '039 patent.

It is beyond dispute, however, that Appellants are claiming the same invention as the '039 patent. And it is also beyond dispute that Appellants have demonstrated through the affidavits and documents submitted in support of their request for an interference that they are entitled to an earlier invention date than the '039 patent and are *prima facie* entitled to judgment relative to the patentee. Under these circumstances, § 102(e) cannot be used as a basis for rejection. See MPEP §§ 2308.01 and 2308.02

Conclusion

For the reasons given above, Appellants are entitled to a patent with pending claims 25-29, and the Examiner's rejections based on 35 U.S.C. §§ 112, first paragraph, and 135(b) should be reversed. In addition, Appellants have made a *prima facie* showing that they are entitled to judgment in an interference proceeding, and the Examiner's rejection under 35 U.S.C. § 102(e) should be reversed. Finally, the case should be remanded with instructions to declare an interference between the pending application and the '039 patent.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16, 1.17, or 41.20 that are not enclosed herewith,

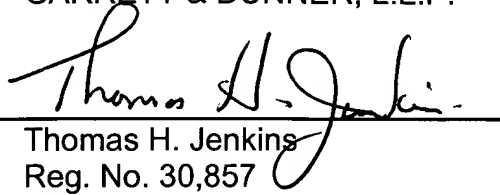
including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: March 25, 2005

By: _____


Thomas H. Jenkins
Reg. No. 30,857

Claims Appendix to Appeal Brief Under Rule 41.37(c)(1)(viii)

25. A pistol having a locking mechanism configured to lock a trigger mechanism of the pistol if an attempt is made by an unauthorized person to fire the pistol, the locking mechanism comprising:

an identification unit configured to detect an identification signal inputted into the identification unit;

a control unit connected to the identification unit, the control unit configured to compare the signal inputted into the identification unit with a stored identification code;

an actuator device including a geared motor connected to the control unit and connected by a threaded spindle and nut connection with a mechanical locking element which is movable between a locked position and an unlocked position, wherein in the locked position the locking element locks a trigger tongue of the pistol;

a battery for supplying electrical power to the locking mechanism; and

a plurality of display elements configured to display an operating status of the locking mechanism.

26. A pistol as claimed in claim 25, wherein the locking element is configured to engage a notch in the trigger tongue, and wherein the locking element is guided for movement in a bolt and is spring-loaded.

27. The pistol as claimed in claim 25, wherein at least the greater portion of the locking mechanism is located in front of a trigger guard and below the barrel of the pistol.

28. The pistol as claimed in claim 25, wherein the identification unit comprises a keypad for the input of the code.

29. The pistol as claimed in claim 25, wherein the identification unit comprises a finger-print scanner.

Evidence Appendix to Appeal Brief Under Rule 41.37(c)(1)(ix)

The evidence relied upon by the Appellants in this appeal consists of the following Appendices:

Appendix A – U.S. Patent No. 6,293,039;

Appendix B – Interference Initial Memorandum;

Appendix C – Proposed Count;

Appendix D – Affidavit of Tony A. Hancock and Jonathan Doran Buckley dated July 8, 2003, with accompanying Exhibits 1-20;

Appendix E – U.S. Patent No. 5,704,151; and

Appendix F – U.S. Patent No. 5,448,847.

These appendices and exhibits were submitted to the Patent Office by Appellants in their communication dated November 5, 2003. The Examiner's Office Action mailed April 23, 2004 is described as "responsive" to that communication.

Related Proceedings Appendix to Appeal Brief Under Rule 41.37(c)(1)(x)

There are no related proceedings.

INTERFERENCE INITIAL MEMORANDUM

Count # _____

To the Board of Patent Appeals and Interferences: An interference is proposed involving the following 2 parties

PARTY: Rudolf FUCHS	APPLICATION NO.: 09/246,050	FILING DATE: 2/8/99	PATENT NO., IF ANY: 6,293,039 B1	ISSUE DATE, IF ANY: 9/25/01
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If the involved case is a patent, have its maintenance fees been paid? Yes ☐ No ☐ Not due yet ☒ X

Proposed priority benefit (list all intervening applications necessary for continuity):

COUNTRY	APPLICATION NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY
Germany	198 05 306	2/10/98		

The claim(s) of this party corresponding to this count: **Claims 1-19**PATENTED OR PATENTABLE PENDING CLAIMS: **Claims 1-19**

UNPATENTABLE PENDING CLAIMS

The claim(s) of this party NOT corresponding to this count: **None**

PATENTED OR PATENTABLE PENDING CLAIMS:

UNPATENTABLE PENDING CLAIMS

PARTY: Jonathan BUCKLEY et al.	APPLICATION NO.: 09/270,461	FILING DATE: 3/15/99	PATENT NO., IF ANY	ISSUE DATE, IF ANY
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If the involved case is a patent, have its maintenance fees been paid? Yes ☐ No ☐ Not due yet ☐

Proposed priority benefit (list all intervening applications necessary for continuity):

COUNTRY	APPLICATION NO.	FILING DATE	PATENT NO., IF ANY	ISSUE DATE, IF ANY

The claim(s) of this party corresponding to this count: **Claims 25-29**PATENTED OR PATENTABLE PENDING CLAIMS: **Claims 25-29**

UNPATENTABLE PENDING CLAIMS

The claim(s) of this party NOT corresponding to this count: **None**

PATENTED OR PATENTABLE PENDING CLAIMS:

UNPATENTABLE PENDING CLAIMS

(Check off each step, if applicable) **INSTRUCTIONS**

- 1. Obtain all files listed above.
- 2. Confirm that the proposed involved claims are still active and all corrections and entered amendments have been considered. The patents must not be expired for, among other things, failure to pay a maintenance fee (Check PALM screen 2970).
- 3. If one of the involved files is a published application or a patent, check for compliance with 35 U.S.C. 135(b).
- 4. Obtain a certified copy of any foreign benefit documents where necessary (37 CFR 1.55(a)).
- 5. Discuss the proposed interference with an Interference Practice Specialist in your Technology Center.

DATE	PRIMARY EXAMINER (signature)	ART UNIT	TELEPHONE NO.
DATE	INTERFERENCE PRACTICE SPECIALIST or TECHNOLOGY CENTER DIRECTOR (signature)		TELEPHONE NO.

PROPOSED COUNT

A pistol having a locking mechanism configured to lock a trigger mechanism of the pistol if an attempt is made by an unauthorized person to fire the pistol, the locking mechanism comprising:

an identification unit configured to detect an identification signal inputted into the identification unit;

a control unit connected to the identification unit, the control unit configured to compare the signal inputted into the identification unit with a stored identification code;

an actuator device including a geared motor connected to the control unit and connected by a threaded spindle and nut connection with a mechanical locking element which is movable between a locked position and an unlocked position, wherein in the locked position the locking element locks a trigger tongue of the pistol;

a battery for supplying electrical power to the locking mechanism; and

a plurality of display elements configured to display an operating status of the locking mechanism.



APPENDIX D

AFFIDAVIT
OF
TONY A. HANCOCK and
JONATHAN DORAN BUCKLEY

Come the undersigned, Tony A. Hancock and Jonathan Doran Buckley, and after first being duly sworn, state as follows:

1. We are the owners of MEC, Ltd., a Kentucky corporation.
2. On January 9, 1997, we entered into a secrecy agreement with SIG Swiss Industrial Co. (hereinafter "SIG") in preparation for an exchange of information related to development of an electromechanical safety system for firearms in general, and for handguns in particular. We signed that agreement and Dr. Dieter Strich and Rudolf Fuchs signed for SIG. (Rudolf Fuchs would later file a patent application on February 10, 1998 using our design.)

A copy of that Agreement is attached hereto at **Exhibit 1**.

3. On February 18, 1997, we entered into a development agreement with SIG in which we undertook to design a locking/safety system for a handgun, which locking system would be activated electronically. The development agreement contemplated our designing and building two prototypes: a functional prototype and a marketing prototype.

The *functional prototype* was designed to show the function and effectiveness of the design of the electromechanical locking/safety system with the initiating electronics and power supply not miniaturized, but attached instead by means of an umbilical cord.

The *marketing prototype* would have all the electronics reduced in size and on board along with an integral power supply. The marketing prototype would be what would be sold to the public.

SIG wanted to pay us in installments based on the completion of certain benchmarks; however, SIG also wanted the ability to terminate the agreement without further obligation for payment after the completion of any benchmark.

Since we would be revealing our design technology in detail early in this process, we agreed that if SIG chose to terminate the agreement prior to full payment, then in such event, they would have no ownership interest in the design.

That Agreement was signed by Hans Roduner, head of the Small Arms Division of SIG, and for whom both Dr. Dieter Strich and Rudolf Fuchs both worked. Mr. Roduner was also a member of the Executive Committee of SIG's

Board of Directors.

A copy of that Agreement is attached hereto at **Exhibit 2**.

4. We designed two approaches to the problem, one that directly blocked the action of the trigger ("trigger block design"), and a second design that disengaged the trigger bar ("trigger pull down design").

5. On June 18, 1997 we submitted engineering line drawings to Dr. Dieter Strich and Rudolf Fuchs of our "trigger block design with a spring-loaded pin".

A copy of that cover letter and accompanying drawings is attached hereto at **Exhibit 3**.

The original drawings had been produced at our direction, by a subcontractor, Speciality Machining Inc..

A copy of the invoice from Speciality Machining Inc. dated 6/20/97 for those drawings is attached hereto at **Exhibit 4**, along with a copy of the subject four pages of drawings.

6. On June 23, 1997 we submitted 3-Dimensional solid model computer drawings of both the trigger block design and the trigger bar pulldown design, to Dieter Strich and Rudolf Fuchs.

A copy of that cover letter is attached hereto at **Exhibit 5**, along with copies of those 3-Dimensional solid model computer drawings.

7. At this point, we built working *functional prototypes* of the two designs, with the electronics connected to the prototypes by means of an external cable. We modified two SIG handguns, one for each prototype. We hired Speciality Machining Inc. to do the machining to accommodate our design changes.

We identified a source for the unusual motor we chose to use in the design, Micro-Mo Electronics, Inc.

Speciality Machining Inc. built the spring-loaded pin assembly used in our design for the trigger block approach.

After producing the two functional prototypes, we test fired both designs and videotaped that demonstration session, with close-ups of the details of the electromechanical action of each design.

We paid a video company to shoot the video, and a copy of that invoice is attached hereto at **Exhibit 6**.

We met with Dieter Strich and Ruedi Fuchs at SIG in Switzerland on July 9 and 10, 1997 at which meeting we gave them copies of the video converted into the PAL format as used in Europe. We also gave them color photographs of the

detailed parts of both designs.

A copy of that video, in VHS format, is attached hereto at **Exhibit 7**, along with copies of the trigger block color photographs at **Exhibit 8**.

8. At this point, SIG narrowed its interest to only our trigger block design.

9. We hired Shadowsand, Inc., an electronics subcontractor, to build a demonstration electronics board, one to which we could attach the prototype handgun and demonstrate how our keypad approach as an actuator would work in practice.

10. On August 4, 1997 we notified Dieter Strich and Rudolf Fuchs that we had completed the mechanical apparatus for connection to an electronics board and delivered the gun to a cosmetics finisher. In that same correspondence we acknowledged their request to be in Switzerland for their presentation of the prototype to their Board of Directors during the week of August 20, 1997 thru August 28, 1997.

A copy of that email is attached hereto at **Exhibit 9**.

11. On August 6, 1997, we sent color photos to Dieter Strich and Rudolf Fuchs of the prototype with the external electronics board.

A copy of that letter is attached hereto at **Exhibit 10**, along with copies of the color photographs.

12. On August 7, 1997, we received a fax from the secretary to Rudolf Fuchs asking us if we could send a description of the function of the prototype.

A copy of that fax is attached hereto at **Exhibit 11**.

13. On August 8, 1997, we delivered the engineering prototype to George Schneider, the President of SIG Arms, USA, a wholly owned subsidiary of SIG Swiss Industrial Co., and demonstrated its operation.

On August 10, 1997 we replied to Rudolf Fuchs' request for a description of the function of the prototype by suggesting that we would demonstrate it for them on August 20, 1997 when we arrived in Switzerland.

A copy of that correspondence is attached hereto at **Exhibit 12**.

14. On August 13, 1997 we received an email from Rudolf Fuchs in which he asked us if he and Dieter Strich would be able to operate the prototype with our help over the phone if any problems in importing the gun arose.

A copy of that email is attached hereto at **Exhibit 13**.

15. We made arrangements to demonstrate the operation of the prototype at the SIG facility in Switzerland on August 21, 1997.

A copy of that email is attached hereto at **Exhibit 14**.

A copy of the "Instructions for Operation" dated 8/20/97 furnished to Rudolf Fuchs and Dieter Strich at that meeting is attached hereto at **Exhibit 15**.

16. We remained in Switzerland for the balance of the Board meeting and were informed by Rudolf Fuchs that the presentation went very well. We returned to the United States and proceeded to work on completing the marketing prototype which had the electronics miniaturized and on board along with the power supply.

17. We had invoiced SIG for the third payment under our Agreement, and in response, on December 4, 1997, we received a letter signed by Dieter Strich and Rudolf Fuchs terminating the Agreement because "our marketing people are not sure if we should introduce a PIN-code based solution to the market".

A copy of that termination letter is attached hereto at **Exhibit 16**.

18. We were disappointed that SIG was not interested in going forward but there remained a significant market for the technology so we proceeded to complete what would have been the marketing prototype. We had hired Shadowsand, Inc. to miniaturize the electronics, and the marketing prototype was completed in December 1997 so that we could have it with us at the January 25, 1998 Shot Show, the arms and ammunition industry yearly trade show.

We provided Shadowsand, Inc. with the functional requirements for the electronics, and Shadowsand designed and built the electronics boards to meet those functional requirements.

In conjunction with Shadowsand, and another electronics subcontractor, Dynaphysics, Inc., a North Carolina company, we detailed our the specifications for the keypad and ordered them from Elite Sales & Technology, Ltd., also a North Carolina company.

Our marketing prototype included the same trigger block design with a spring loaded pin that was shown on the June 18, 1997 line drawings furnished to SIG, and that was also exhibited in the functional prototype supplied to SIG for their Board presentation.

A photograph of that marketing prototype is attached hereto at **Exhibit 17**, along with photographs of the miniaturized electronics and keypad.

An Affidavit of Sean Garnett, President of Shadowsand, Inc. is attached hereto at **Exhibit 18**, in which affidavit Mr Garnett acknowledges providing the miniaturized electronic boards and physically assembling the final marketing prototype in December 1997.

19. An Affidavit of Austin D. Pyle, President of Speciality Machining Inc. is attached hereto at **Exhibit 19**, in which affidavit Mr. Pyle acknowledges providing the machining for the modification of all the prototypes, including the SIG 239 prototype with the onboard electronics and power supply.

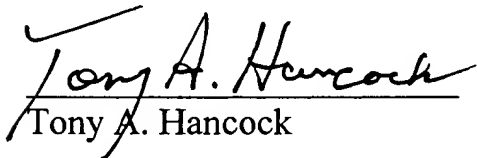
20. In response to our December 10, 1997 request for a return of the functional prototype and all materials furnished SIG, SIG sent some of our photos, videotapes, and electronic circuit boards back to us in late January 1998.

A copy of the inventory furnished customs by SIG is attached hereto at **Exhibit 20**.

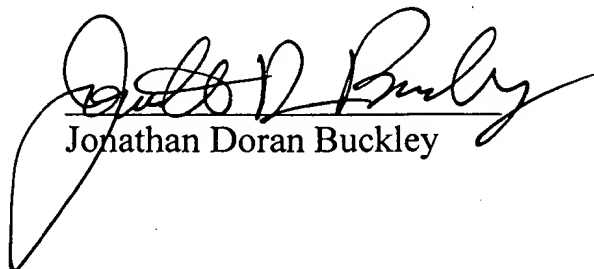
20. On February 10, 1998, Rudolf Fuchs filed a European patent application using the exact electromechanical design featured in our functional and marketing prototypes.

21. In May 14, 1998, nine months after we gave it to them, SIG returned our prototype.

Further the affiants saith not.

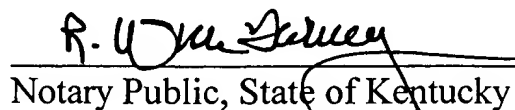

Tony A. Hancock

Commonwealth of Kentucky
County of Fayette


Jonathan Doran Buckley

Subscribed, sworn to, and acknowledged before me by Tony A. Hancock and Jonathan Doran Buckley, on this the 8th day of July 2003.

My Commission Expires: 3-6-2006


Notary Public, State of Kentucky

This Agreement is effective this 9th day of January, 1997

by and between

MEC Ltd.
1783 Iron Works Road
Lexington, KY 40511
USA
(hereinafter called MEC)

and

SIG Swiss Industrial Company
CH-8212 Neuhausen / Rhine Falls
(hereinafter called SIG)

regarding:

Electronic / Electromecanic Identification and Security
System for Handguns

WHEREAS, MEC is a company, registered domicile in Lexington, USA, the activity of which is or will be the further development of Electronic Identification and Security System for handguns, this being fully authorized to do so by the owner of such systems, and

WHEREAS, SIG through its Small Arms Division is a handgun manufacturer, manufacturing such products in different countries and selling them worldwide,

and

WHEREAS, MEC is interested to cooperate with SIG in developing an Electronic / Electromecanic Identification and Security System for pistols, and

WHEREAS, SIG is interested to cooperate with MEC in the development of the above mentioned systems by giving MEC full access to all its pistol technology as far as it is useful for the development of the above mentioned systems,

NOW, THEREFORE, the parties hereto agree as follows:

1. DISCLOSURE OF CONFIDENTIAL INFORMATION

All Information disclosed by MEC to SIG or by SIG to MEC concerning the above mentioned subject, except as set out below, whether disclosed verbally, by samples or in writing, shall be considered confidential (hereinafter: Confidential Information).

2. OBLIGATION OF SECRECY

The parties hereto agree that Confidential Information disclosed to each other hereunder shall be retained in confidence and shall not be used for purposes other than those of the disclosing party's obvious intent, or disclosed to others, for a period of five (5) years from the date of disclosure, unless the information

- a) was known to the other party prior to disclosure by the party who disclosed the information;
- b) was publicly available at the time of the disclosure to the other party;
- c) subsequently becomes publicly available through no fault of the other party;
- d) subsequent to disclosure is rightfully acquired by the other party from a third party who is not in breach of a confidential relationship to the disclosing party with regard to such information; or
- e) corresponds to information furnished by the disclosing party to any third party on a non-confidential basis.

3. FURTHER OBLIGATIONS

- 3.1 The parties hereto agree that they will disclose the Confidential Information only to such of their employees who have a need to know said information in order to carry out their responsibilities.
- 3.2 The parties hereto agree not to make use of the Confidential Information without the disclosing party's written consent.
- 3.3 Each party reserves to the disclosing party the exclusive right to ask for and obtain patents or other legal protection concerning the disclosed Confidential Information. The party receiving the information shall in no way hinder the other party in its efforts to get patents or other legal protection concerning the Confidential Information.
- 3.4 At the termination of the project mentioned above or at any other time at the demand of MEC or SIG respectively, the party having received the Confidential Information shall return all of the documents transferred to it in confidence and shall retain no copy thereof.

4. TERMINATION OF AGREEMENT

This Agreement will be terminated after 5 years from the date of execution of this Agreement unless it is mutually agreed to be terminated earlier.

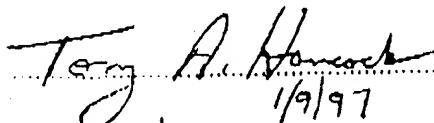
5. JURISDICTION AND LAW

This Secrecy Agreement shall be governed by and interpreted according to the Swiss Law. Any disputes, controversies or claims arising out of pertaining to this Agreement or breach hereof which cannot be amicably settled between the parties hereof shall be finally submitted to and settled by the Courts of Schaffhausen.

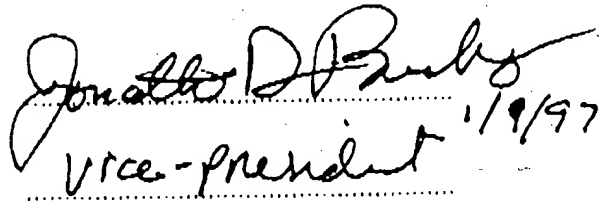
If SIG is the plaintiff, it may bring action before the competent Court of the place where the other party has its registered domicile.

MEC Ltd., 1783 Iron Works Road, Lexington, KY 40511, USA

by


1/9/97

by


1/9/97

title

President

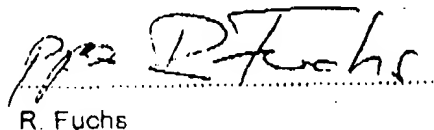
title

Vice-President

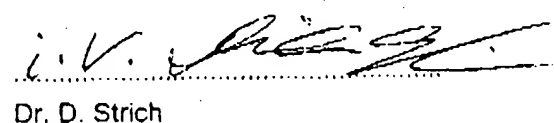
date 9th January, 1997

SIG Swiss Industrial Company, CH-8212 Neuhausen / Rhine Falls

by


R. Fuchs

by


Dr. D. Strich

title

Chief Engineer
Small Arms Division

title

Head Business Development and Projects
Small Arms Division

date 9th January, 1997

AGREEMENT

This Agreement is made and entered into on this the 18 day of February 1997 by and between:

SIG Swiss Industrial Company
CH-8212 Neuhausen/Rhine Falls
Switzerland
(hereinafter called "SIG")

and

MEC, Ltd.
1783 Iron Works Pike
Lexington, KY 40511
USA
(hereinafter called "MEC")

WHEREAS, SIG is an industrial company engaged in a variety of commercial areas one of which is the design, manufacture, and sale of handguns; and

WHEREAS, MEC is an engineering consulting company engaged in a variety of commercial areas one of which is the design of handguns involving the application of electrical components; and

WHEREAS, SIG and MEC both believe that a commercial market exists for an innovative handgun incorporating an electrical locking mechanism that acts to restrict the use of such a weapon to only authorized users; and

WHEREAS, SIG would like to engage MEC to design a prototype of the handgun described above, which weapon, for ease of reference, shall be designated as an "electromechanical gun"; and

WHEREAS, MEC would like to produce such a design for SIG;

NOW THEREFORE, it is agreed as follows:

1. PURPOSE: MEC will design an electronically based locking/safety system for handguns which will limit the use of the weapon to only authorized users. The locking/safety system will be a modification to an existing SIG model handgun and be effectively an electromechanical application. MEC will produce two prototypes of this weapon, a functioning prototype and subsequently, a marketing prototype.

2. SAFE GUN COMPONENT OVERVIEW:

An electromechanical gun shall utilize an electronic safety applied and adapted for use on a conventional handgun, and a dedicated microprocessor powered electrically and activated by means of some device (referred to as the "actuator"). The

Exhibit 2

microprocessor, after activation will send instructions to a mechanical or electrical device which in turn will deactivate a mechanical safety thereby permitting the gun to be used. (See diagram attached hereto at Exhibit A). The actuator can be engaged only by authorized users, and authorization can be limited and controlled.

3. COMPONENTS DESCRIBED:

A. The Actuator:

The actuator shall be either a proximity device, tone pad, magnetic key, or precision resistor, or a combination or variation thereof.

The choice of the actuator will be governed by what best preserves the utility of the firearm and still limits the control of the weapon to authorized individuals only.

B. The Power Supply:

The power supply must be reasonable, completely reliable, and fit unobtrusively without significantly changing the shape or appearance of the usual handgun. Reliability of the power supply is a controlling factor.

C. The Microprocessor:

A dedicated microprocessor shall be powered by the power supply and will send instructions to a miniaturized electrical/mechanical device which in turn shall deactivate the mechanical safety thereby unlocking the weapon.

D. Electromechanical Device:

An electromechanical device will be employed to act on a mechanical part to create a locking/safety device. The location and function of this device will be either a trigger block, hammer block, transfer bar block, or possibly another area involved in the transfer of power to the primer of the cartridge. Space considerations will be of paramount importance in this regard, as well as consideration of the possibility of an unauthorized modification to modify the weapon so as to defeat the safety system.

4. PERFORMANCE BENCHMARKS:

The project shall be divided and progress in three stages:

A. Stage 1: MEC will identify and explain both in writing and by rough diagram the proposed selection and operation of the actuator and electromechanical device, as well as the potential location of all components on or before May 31, 1997. It is understood that this identification is for approval of the

direction of the effort.

B. Stage 2: Following SIG's approval of Stage 1, MEC shall proceed to build a functioning prototype. The functioning prototype shall be a model created to illustrate and test the practicality of the design of the mechanism, powered and actuated however, by devices external to the weapon. Additionally, the functioning prototype may not necessarily have reduced all of the elements to the size required for a subsequent marketing prototype. The purpose of the functioning prototype is to merely demonstrate the viability and reliability of the approach taken without regard to fitting all the necessary components within the handgun itself.

C. Stage 3: Upon SIG's approval of the approach demonstrated by the functioning prototype, MEC will then proceed to incorporate and build that mechanism into a marketing prototype which will be a fully functional model in a form able to be marketed to the public under the SIG name. The purpose of the marketing prototype is to produce a commercial, as opposed to an experimental, model.

5. TIME FOR PERFORMANCE:

Stage 1 shall be completed by May 31, 1997. The functioning prototype shall be completed by September 30, 1997. The marketing prototype shall be completed by February 1, 1998. If at all possible, MEC will attempt to exceed those performance deadlines.

6. WORKING RELATIONSHIP WITH SIG:

SIG shall work closely together with MEC at all stages of the development. SIG shall offer suggestions as to the direction the work is taking. SIG may elect to support the work with technology of their own and may elect to supply equipment, parts and/or guns for use in the project, though it is under no obligation to do so.

MEC will provide a written detailed status report on at least a monthly basis to SIG, and will as appropriate, meet with SIG in the United States or Switzerland from time to time to discuss the direction and progress of the project. Naturally, MEC will respond to any inquiry SIG may have at any time.

MEC will also, submit to SIG any perceptions it may have on the character of the market, and suggestions for a marketing approach, though the marketing of the product is the sole province of SIG.

SIG will have the option of terminating the balance of the Agreement at any stage of the Agreement without any further liability to MEC.

The intent of this type of working relationship is to create an environment where MEC and SIG work efficiently together at all stages so as to minimize misdirection and wasted effort. At the conclusion of the work, SIG should end up with a product which meets the requirements of the market as perceived by SIG.

7. PAYMENT TO MEC:

MEC shall be paid with non-royalty amounts as follows:

- A. \$170,000.00 U.S. upon invoice following execution of this agreement;
- B. \$170,000.00 U.S. upon invoice following approval at completion of Stage 1; and
- C. \$170,000.00 U.S. upon invoice following approval at completion of Stage 2; and
- D. \$170,000.00 U.S. upon invoice following completion of Stage 3.

Any royalties payable hereunder shall be paid per SIG's usual procedure.

8. PATENTS AND ROYALTIES

Any systems or devices created capable of being patented, may be patented in the name of SIG, or patented and ownership transferred to SIG, as SIG would choose. Costs of patent protection will be SIG's expense, and selection of patent attorneys will be SIG's decision.

For the use of the electronically based locking/safety system for handguns developed by MEC, royalties will be payable to MEC, Ltd. based on the net value added to the weapon (and specifically not based on the either the gross or net selling price of the weapon) at the following rates:

- 2% for sales within December 31, 2000
- 1% for sales after December 31, 2000 but within December 31, 2002
- 0.5% for sales after December 31, 2002 but within December 31, 2003

9. NON-INFRINGEMENT OF THIRD PARTIES RIGHTS:

MEC warrants that it will not, by developing and designing the electronically based locking/safety system for handguns, infringe any third parties rights. MEC shall hold harmless SIG and all companies belonging to the SIG-Group and using the MEC electronically based locking/safety system for handguns from any damage, liability costs or whatsoever which might arise from MEC's infringement of third parties rights.

10. OWNERSHIP OF TECHNOLOGY RIGHTS UPON PREMATURE TERMINATION:

As contemplated above, SIG may terminate this Agreement at any stage without obligation for future payment of any non-royalty amounts. MEC of course, will be identifying in detail at the early stages of this Agreement, its concept for this type of weapon. In the event SIG should choose to terminate this Agreement prior to full funding thereof, then in such event SIG will not be entitled to ownership or use of any of the information or technology disclosed to it by MEC under the performance of this agreement, unless of course, it was information or technology known to SIG

prior to the execution of the Non-Disclosure and Proprietary Information Agreement previously executed by SIG and MEC.

Should the Agreement be fully funded, SIG shall have the exclusive rights to the information and technology as outlined in paragraph 8 above.

11. JURISDICTION AND LAW:

This Agreement shall be governed by and interpreted according to the Swiss Law. Any disputes, controversies or claims arising out of or pertaining to this Agreement or breach hereof which cannot be amicably settled between the parties hereof shall be finally submitted to and settled by the Courts of Schaffhausen.

If SIG is the plaintiff, it may bring action before the competent Court of the place where MEC has its registered domicile.

12. ENTIRE AGREEMENT AND NOTICES:

This writing represents the entire agreement of the parties and any modification to this Agreement, to be effective, shall be in writing, dated, and signed by two representatives of each of the parties. There are no other agreements, verbal or written, executed either prior to or contemporaneously herewith, between the parties that would vary or contradict any of the terms of this Agreement.

Any notices which are date sensitive shall be sent shall be sent by certified mail or courier to the party at the address listed hereinbelow, and shall be considered effective either upon actual receipt, or seven days after sending, whichever is earlier.

SIG Swiss Industrial Company
CH-8212 Neuhausen Rhine Falls
Switzerland

By: *H. Roduner*

By: *O. V. Dürren*

Title: Head of the Business Unit Small Arms

Title: Business Dev. / Projects

Date: 25. Feb 97

Date: 25 Feb. 97

MEC, Ltd.
1783 Iron Works Pike
Lexington, KY 40511
USA

By: *Tony A. Hancock*

Tony A. Hancock

By: *Jonathan Doran Buckley*

Jonathan Doran Buckley

Title: President

Title: Vice-President

Date: 2/18/97

Date: 18 Feb 97

Personal & Confidential
6/18/97

MEC Ltd.

1788 Iron Works Road
Lexington, KY 40511
606-299-2870
606-299-7885 FAX

Dr. Tony A. Hancock
Principal

June 18, 1997

Dr. Dieter Strich and Mr. Ruedi Fuchs
Business Unit Small Arms
SIG Swiss Industrial Company
CH-8212 Neuhausen Rhine Falls
Switzerland

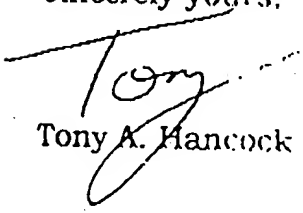
Dear Dieter and Ruedi:


Please find enclosed some of the drawings you requested. These are line drawings of the trigger block design with a spring loaded pin.

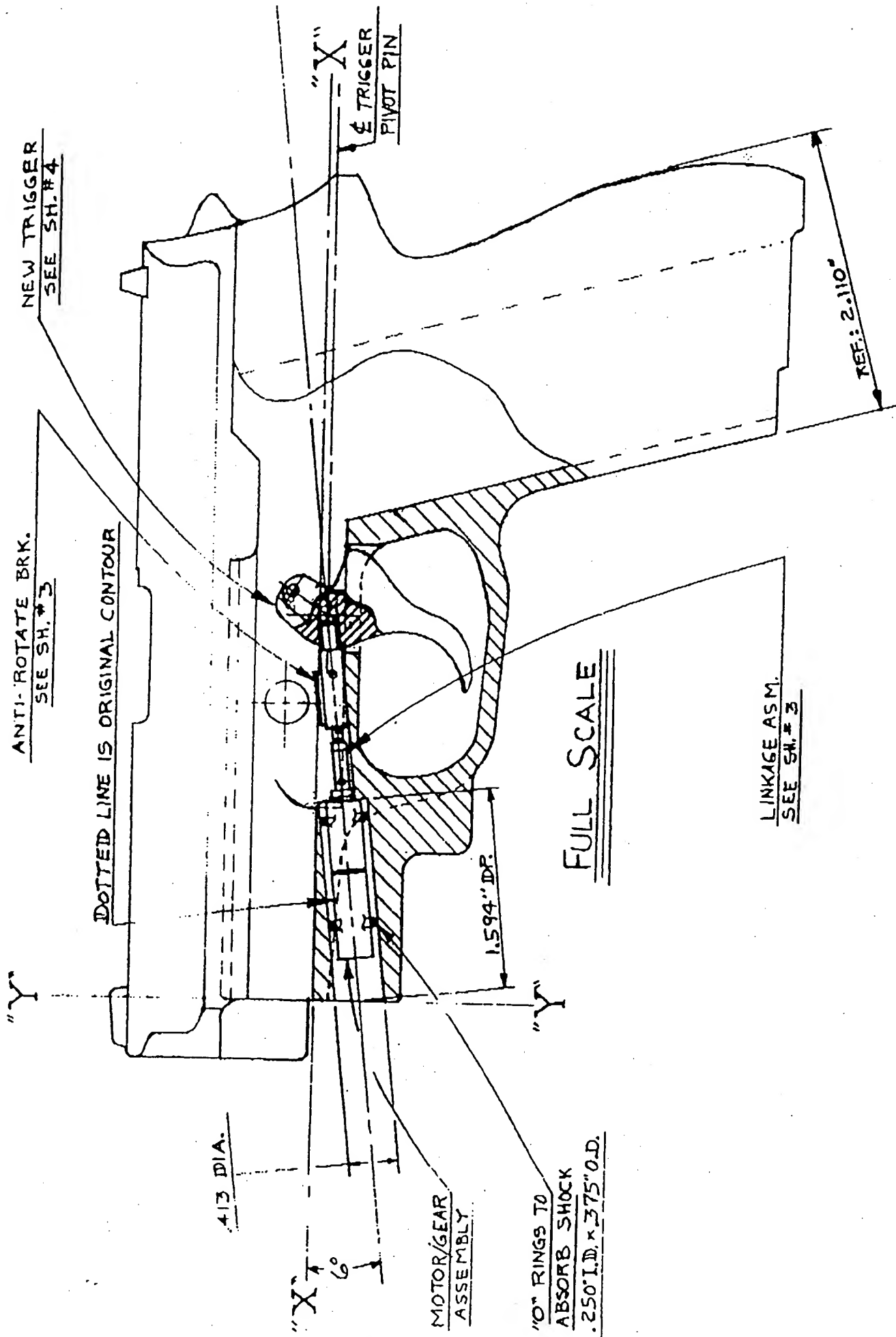
We will forward the rest of the line drawings as they become available. We are still hopeful that we will be able to send you 3D computer solid models during the weekend.

We enjoyed the information exchange in the telephone call this morning and look forward to seeing you on July 10.

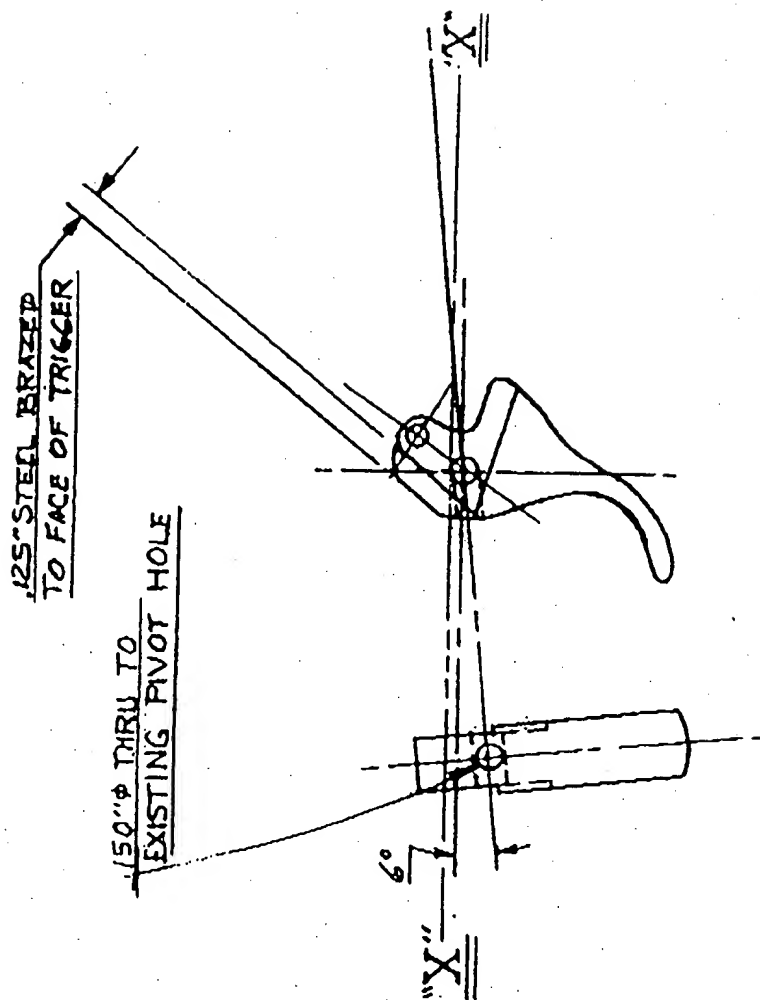
Sincerely yours,


Tony A. Hancock

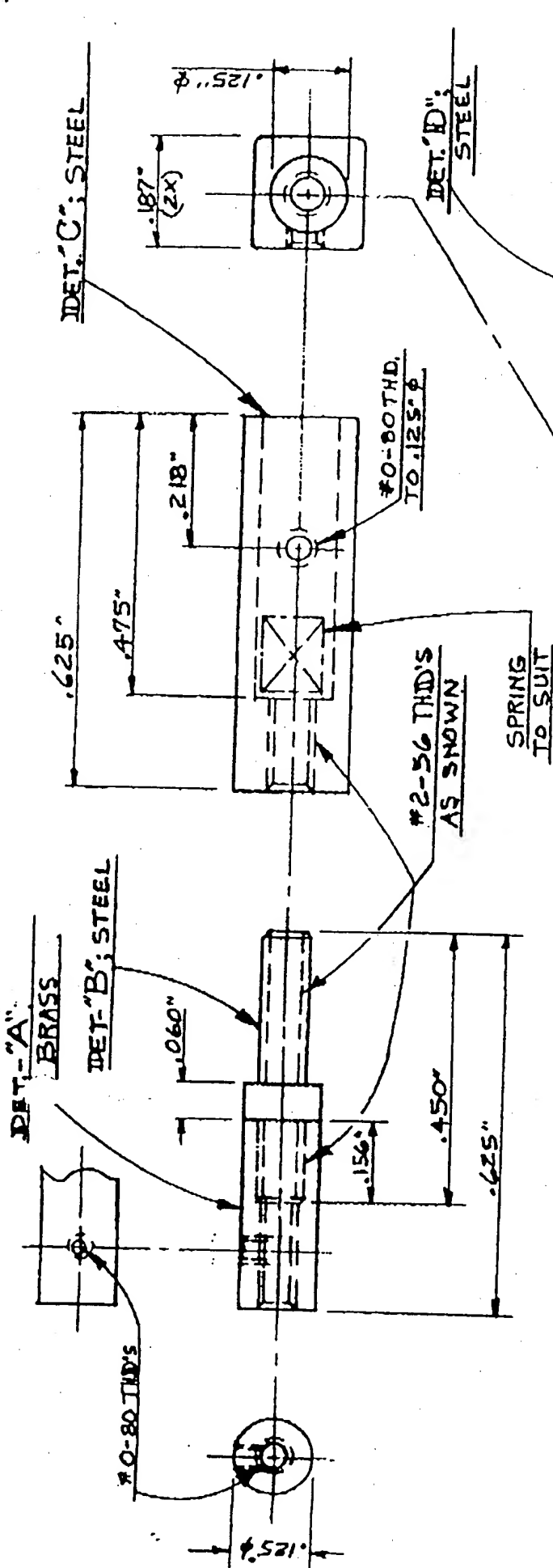

Jonathan D. Buckley



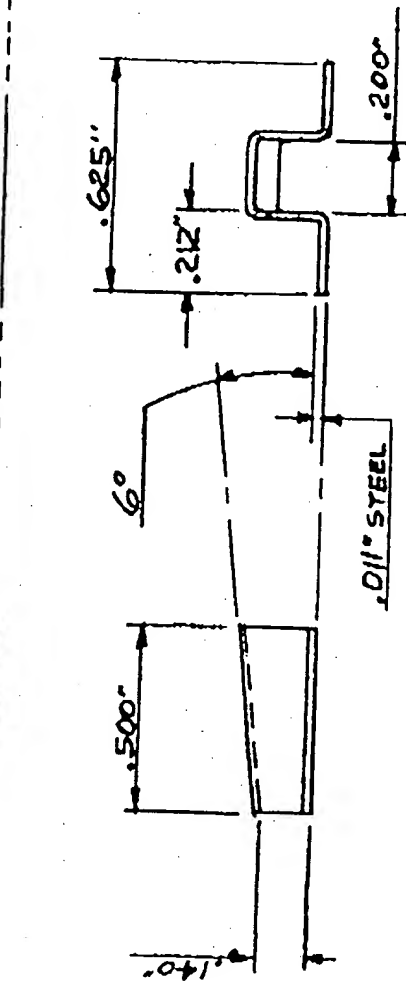
SH.# 1 OF 4



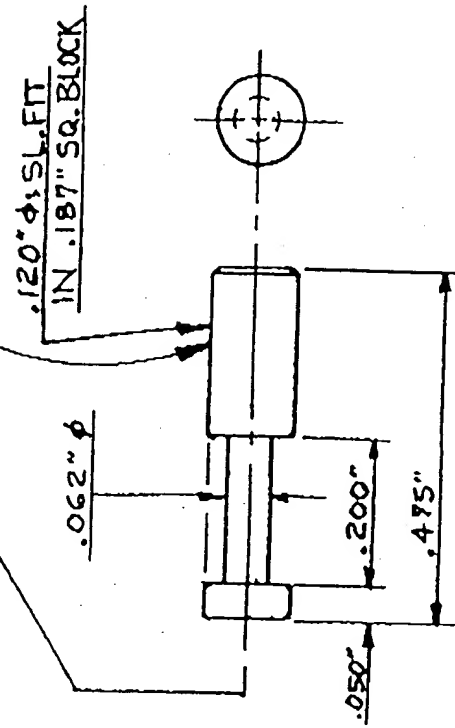
SH.#4 DF 4



LINKAGE ASM.
4:1 SCALE



ANTI-ROTATE BRACKET
2:1 SCALE



SPECIALITY MACHINING INC.
4791 Bryan Station Pike
Lexington, Kentucky 40516
(606) 299 - 7177

Date: 06/20/97

: MEC LTD
: 1588 DELAWARE AVE
: LEXINGTON, KY
: 225-3500

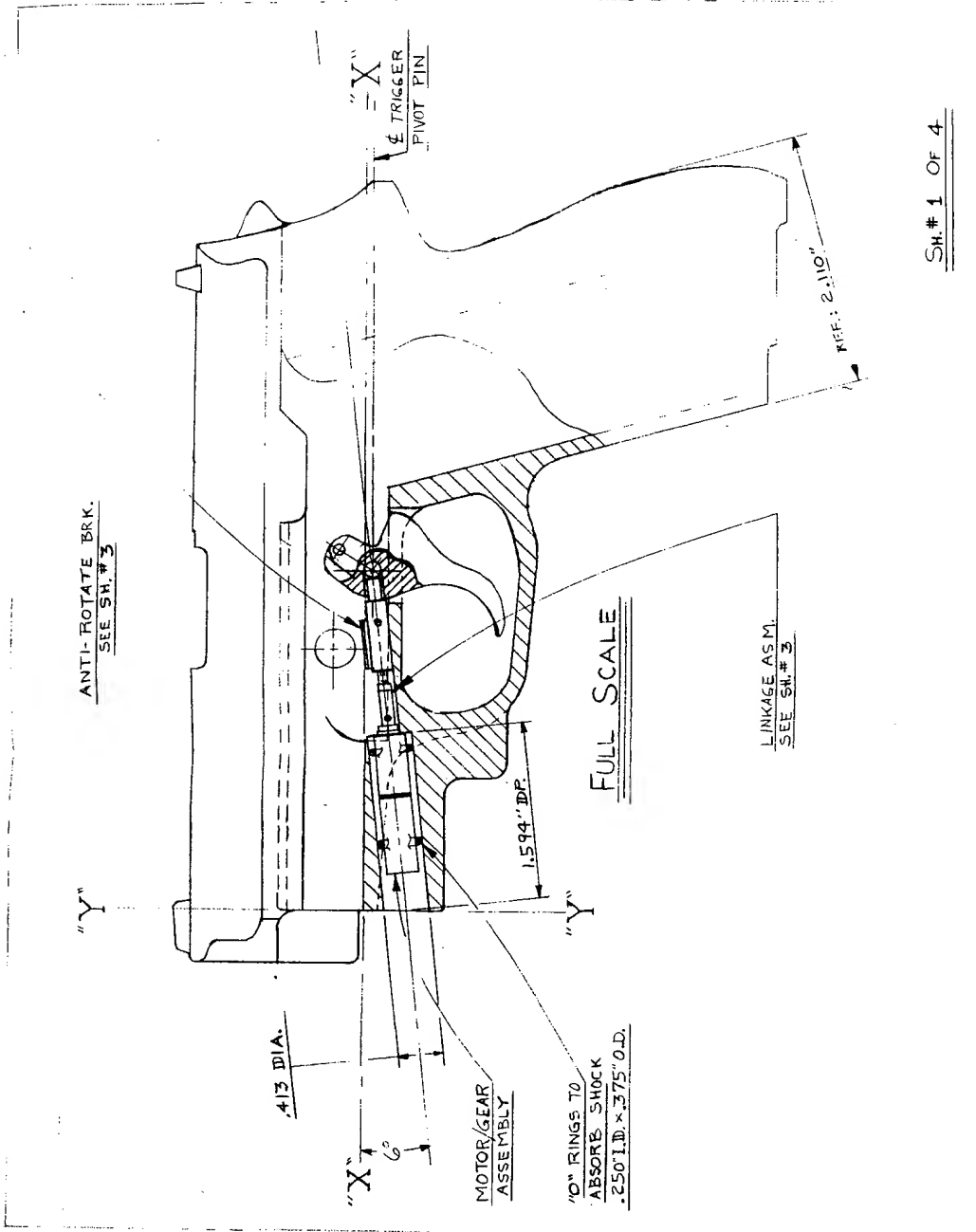
Description: MAKE DRAWINGS PER INSTRUCTIONS

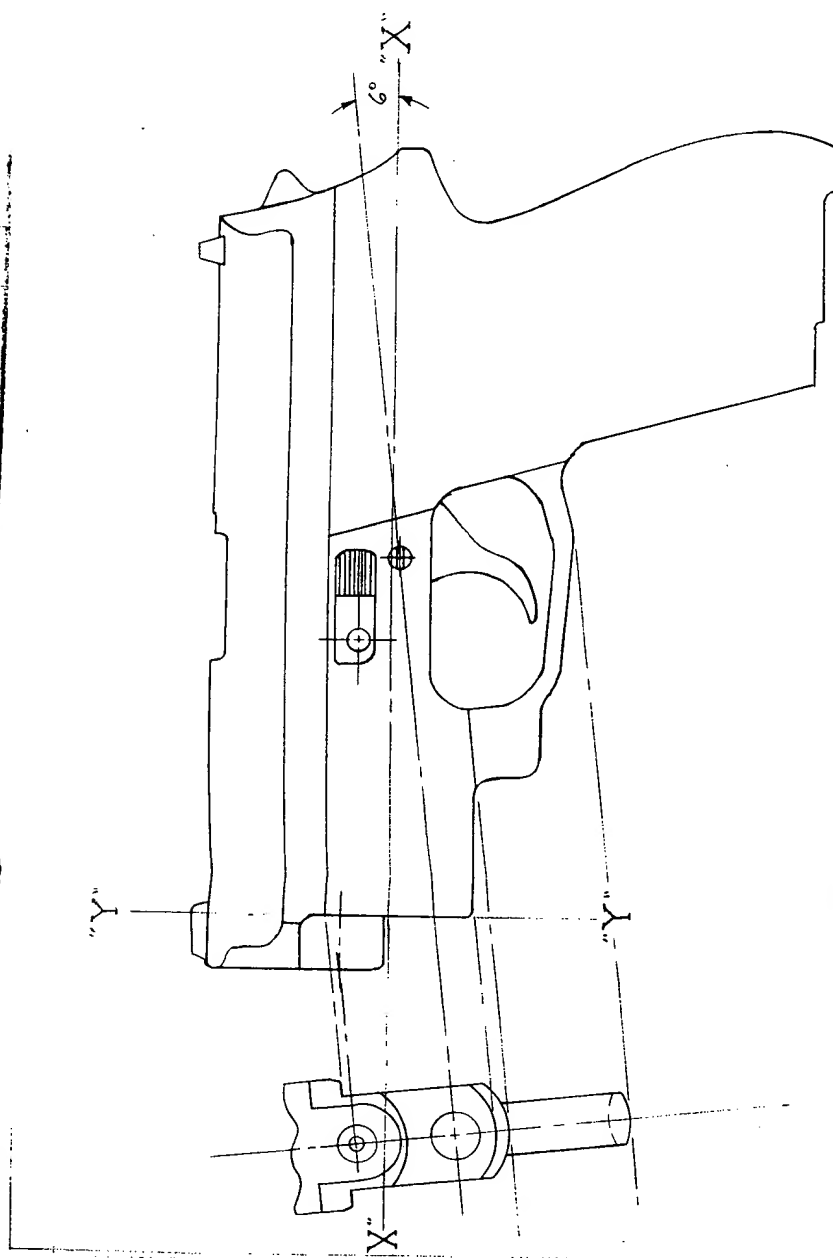
Materials & Supplies:	5/27/97	:	192.59
	6/23/97	:	180.00

r: @: Per hour:
6%

1 incl. Tax	>	:	
1 less Tax, certificate on file or labor	>	:	
, no material used.	>	:	372.59

k you, Received by

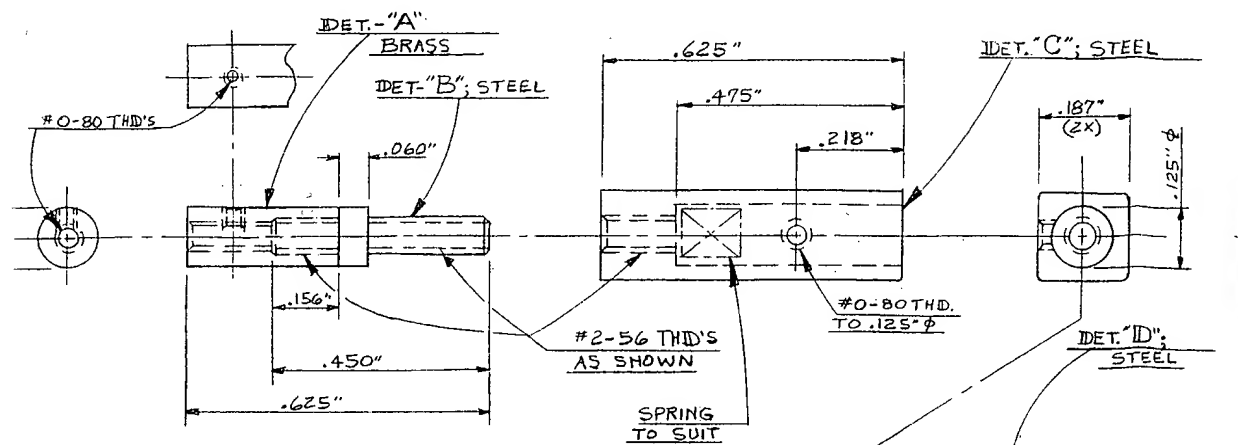




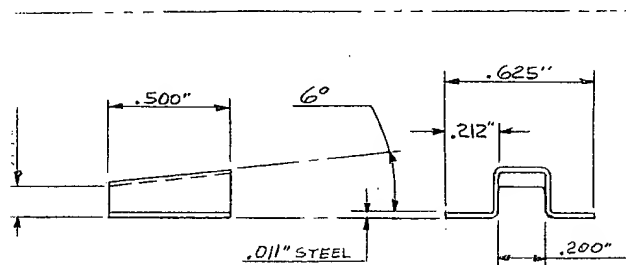
Full Scale

SH. #2 OF 4

1. This drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes. 2. The drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes. 3. The drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes.	
4. The drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes. 5. The drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes.	6. The drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes. 7. The drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes.
8. The drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes. 9. The drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes.	10. The drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes. 11. The drawing is a reproduction of the original drawing and is not to be used for manufacturing purposes.

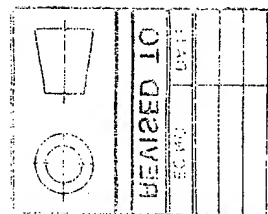


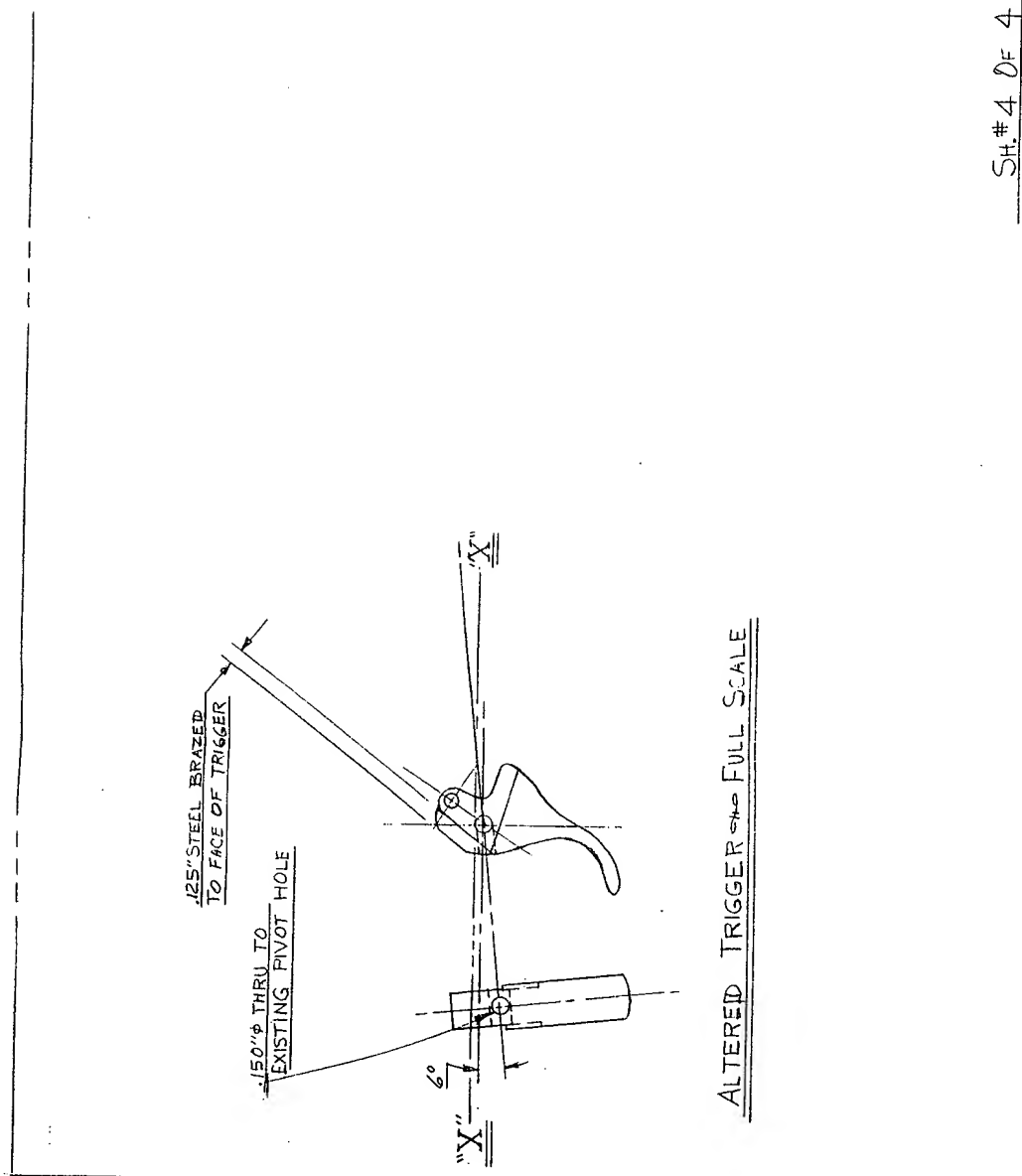
LINKAGE ASM.
4:1 SCALE



ANTI-ROTATE BRACKET
2:1 SCALE

SH. #3 OF 4





ALTERED TRIGGER ~~to~~ FULL SCALE

SH. # 4 OF 4

COPY 2

10 8

STATEMENT

DATE _____

July 7 97

TERMS

~~TO~~

TIME OUT PRODUCTIONS

~~ADDRESS~~

JOHN HEFLIN

223.4539

~~IN ACCOUNT WITH~~

JOHN BUCKLEY

Hi8 VIDEO SHOOT	3 hrs	@ \$20	\$60
-----------------	-------	--------	------

DUPLICATE TO VHS ~~X~~ 3 CASS 15

CONVERSION TO PAL 2@ 7.50	15
---------------------------	----

5 VHS BLANKS	2 @ 10	20
--------------	--------	----

TOTAL		\$110.
-------	--	--------

20

DC 5812

Exhibit 6

For Exhibit 7 See Enclosed Video

Exhibit 7

Subj: Delivery of P97 Prototype to Exeter
Date: 97-08-04 08:28:23 EDT
From: HANCOCKTA
To: dstrich@spectraweb.ch, dstrich@sig.ch
To: rfuchs@sig.ch
CC: lishky

Sent via EMAIL
8/4/97 8:30 AM
TAA

Dieter and Ruedi

The mechanical apparatus was completed over the weekend and we have delivered the gun to the cosmetic finisher. This should be complete by Thursday August 7 and we will plan to deliver it to Exeter on the morning of Friday August 8 between 9:00 and 9:30 AM unless you direct us otherwise. As of this moment, the gun we will be sending is serial number AB 10593.

We will send photographs of this engineering prototype to you by DHL later this week and will give you the airbill number as soon as we send them.

The prototype electronics are working well and we are in the process of fine tuning the programming. We will send this equipment to you separately from the gun but before August 20. As you have requested, we will be in Switzerland and available to you from August 20 to August 28.

If you have questions give us a call

Tony and Jonathan

Exhibit 9

07-AUG-97 15 24 VON SIG CB WAFEN

ID +41 52 674 66 01

S. 1

SIG Swiss Industrial Company
CH-8212 Neuhausen/Rhine Falls - Switzerland
Small Arms Department Neuhausen



Fax +41 52 / 674 66 01

Phone +41 52 / 674 61 11

TELEFAX

Page 1 / 1

MEC Ltd.
Dr. Tony A Hancock
President
1783 Iron Works Road
Lexington KY 40511
USA

Date: 08/07/97
Your ref.:
Our ref.: Wa-wt / cn
Int. Fax Nr.:
Direct Ext.: +41 52 / 674 76 65

Fax +1 606 / 299 78 85

(CN-2470)

Your fax dated August 6, 1997

Thank you for sending the above mentioned fax. Mr. Fuchs and Mr. Strich were out of office.
I managed to call to Mr. Fuchs and he asked me to send you the following message

Please give the keys to the locked box with the pistol to Mr. Schneider on Friday, 08/08/97.

Mr. Fuchs would like to have a description of the function. Can you send one via DHL?

Best regards

Christa Nadig
Secretary to Mr. Rudolf Fuchs

Exhibit 11

Subj: Meeting at SIGARMS in Exeter
Date: 97-08-10 17:56:19 EDT
From: HANCOCKTA
To: dstrich@spectraweb.ch, dstrich@sig.ch
To: rfuchs@sig.ch
CC: Irishky

Dieter and Ruedi,

We met with George Schneider and Hermann Kloetzer in Exeter on Friday August 8. We transferred to them the engineering prototype pistol serial AB 10593. It was in good working order and we demonstrated that it did work for George and Hermann. It is our understanding that Hermann will hand carry the engineering prototype to you in the very near future. Hermann told us that all of his export documents were in order and that he should have no problems.

We will send the electronics as well as some spare parts and test equipment to you under separate cover via DHL. Did you receive the photographs of the engineering prototype?

At this point we plan to arrive in Zurich on August 19 and will be ready to meet you on August 20 and demonstrate the function of the pistol to you. We will give you our travel schedule later.

Thank you.

Tony and Jonathan

Exhibit 12

Subj: Fwd: P97 Visit in Switzerland
Date: 97-08-13 17:12:30 EDT
From: HANCOCKTA
To: Irishky

Forwarded Message:

Subj: P97 Visit in Switzerland
Date: 97-08-13 17:00:45 EDT
From: rfuchs@sig.ch (rfuchs)
Reply-to: rfuchs@sig.ch
To: HANCOCKTA@aol.com (Tony Hancock)
CC: dstrich@sig.ch

Hallo Tony and Jonathan

I just read your E-mail where you announced your plan to meet us on 19./20. Aug.97 in Neuhausen in order to demonstrate the prototype.

Unfortunately Dieter and myself have both problems to meet you on this dates due to meetings that are already set on these two days. For me the 21.Aug.97 would work in the afternoon.

On the other side we are not sure at the moment, that SIGARMS will be able to import the prototype in time.

It is planned that Hermann Klötzer will bring this prototype personally to Neuhausen on his trip next Friday (22.Aug.97). He has all the needed papers. But you never know in our business if it works on the customs.

Can you imagine that Dieter and myself are able to start the prototype with some help of you over the phone ?

Can we shoot with the prototype?

Please contact me as soon as possible.

Best regards

Ruedi Fuchs

Headers

From rfuchs@sig.ch Wed Aug 13 11:54:45 1997
Return-Path: <rfuchs@sig.ch>
Received: from piranha.eds.ch (piranha.eds.ch [194.235.48.10])
by mmin85.mail.aol.com (8.8.5/8.8.5/AOL-4.0.0)
with SMTP id LAA00711 for <HANCOCKTA@aol.com>;
Wed, 13 Aug 1997 11:54:42 -0400 (EDT)
Received: by piranha.eds.ch (951211.SGI.8.6.12.PATCH1042/951211.SGI.AUTO)
for <HANCOCKTA@aol.com> id TAA20492; Wed, 13 Aug 1997 19:54:27 +0200
Received: from mailsrv.eds.ch(194.235.174.72) by piranha via smap (3.1)
id xma020488; Wed, 13 Aug 97 19:54:21 +0200
Received: from nhadm.sig.ch ([158.133.10.83]) by sigmail.eds.ch
(Netscape Mail Server v2.01) with SMTP id AAA15817;
Wed, 13 Aug 1997 17:53:45 +0200

Exhibit B

Personal & Confidential
8/13/97

MEC Ltd.

1788 Iron Works Road
Lexington, KY 40511
606-299-2870
606-299-7885 FAX

Dr. Tony A. Hancock
President

August 13, 1997

Dr. Dieter Strich and Mr. Ruedi Fuchs
Business Unit Small Arms
SIG Swiss Industrial Company
CH-8212 Neuhausen Rhine Falls
Switzerland

Dear Dieter and Ruedi:

We got your Email today and suggest a conference call on Thursday, August 14 at 5:00 PM your time (11:00 AM our time). If this time is not good for you to call us, please give us an alternate time.

Hermann Kloetzer is carrying only the mechanical part of the engineering prototype. As you recall the electronic component of the engineering prototype will be external and connected to the gun by a wire. You will note on the gun an electrical connector for this purpose. We chose not to send the electrical component with the gun so as to guard against inadvertent damage in transit. We will bring this component with us.

We understand that you are unable to meet with us on Friday, August 22. However, we would like to be able to pick up the gun from you or use your facility to check out the gun and make sure that it was not damaged in transit. After we have done this, we can meet with you at your convenience.

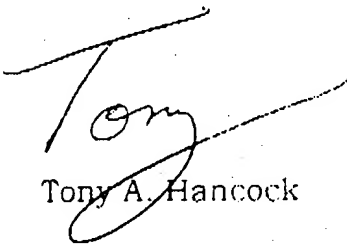
Exhibit 14

Personal & Confidential
8/13/97

As for shooting the gun, this engineering prototype is unusual in that we have done extensive cosmetic work to create the appearance of a unified frame when in fact the additional piece is held in place by roll pins and screws. This was done for your board presentation. The engineering prototype is fully functional, but we suggest that you not shoot the gun until after the presentation because shooting the gun will likely destroy the cosmetic work. We also suggest that you not disassemble the gun until we arrive.

We can discuss any of this in detail in the telephone call on Thursday.

Sincerely yours,



Tony A. Hancock



Jonathan D. Buckley

Instructions for Operation

Buttons:

Number Buttons 1/2, 3/4, 5/6, 7/8, 9/0:

The Number Buttons are used to enter the PIN Code which will unlock the gun. They only become functional if the Status Button is pushed first. They are functional only they are lit.

Status Button:

The Status Button has four functions; when you push the status button,

- 1) the Number Buttons are activated,
- 2) the Battery LED lights up to give you the health of the battery,
- 3) the Fire or Safe LED lights up to let you know whether the gun is live or locked, and
- 4) (if held for 3 seconds), it relocks the gun if the gun is live.

LEDs:

BATT:

The BATT led lights up with a steady green light to let you know the battery is strong; if the light flickers, the battery is weak and should be replaced.

FIRE:

The FIRE led lights up with a red light to let you know the gun is unlocked. This led also flickers along with the SAFE led when the gun is in the process of locking or unlocking.

This led also flickers along with the SAFE led to warn the user that the gun will lock automatically after a predetermined amount of time has passed (one-half hour). If however, the STATUS button is pushed when this warning is given, the gun will stay live for another half hour. (Home Defense Model only; the Police Model does not have this feature).

SAFE:

The SAFE led lights up with a yellow light to let you know the gun is locked. This led also flickers along with the FIRE led when the gun is in the process of locking or unlocking.

Exhibit 15

This led also flickers along with the FIRE led to warn the user that the gun will lock automatically after a predetermined amount of time has passed (one-half hour). If however, the STATUS button is pushed when this warning is given, the gun will stay live for another half hour. (Home Defense Model only; the Police Model does not have this feature).

Operation:

1) Unlocking the gun.

Push the Status Button while the gun is locked.

The BATT led and the SAFE led light up along with the Number Buttons.

Enter your four digit pin code. The FIRE and SAFE led's flash while the gun unlocks.

When the gun unlocks, the Number Buttons lights are extinguished, and the other leds go out.

2) Checking the status of gun.

Push the Status Button.

The Number Buttons light up briefly. (The Number Buttons are active only when they are lit.)

The BATT led will light with a brief steady green light to show that the battery is OK. If the BATT light flickers, it shows that it is weak and should be replaced.

Either the FIRE or SAFE led will light with a brief steady light to show whether the gun is unlocked or locked.

3) Locking the gun.

Push and hold the Status Button for 3 seconds. The FIRE and SAFE leds flicker and the gun locks. The leds go out.

Other Safety Features:

Automatic Locking: In the Home Defense Model, the gun automatically relocks after

a predetermined time (one-half hour). The FIRE and SAFE leds will flicker for 15 seconds as a warning before locking out. If during this warning, the Status Button is pushed, the gun resets for another half hour period. If the gun is in the last shot holdback position when it automatically times out, it will relock whenever the slide moves forward. The Police Model does not have this feature.

Inadvertent Pushing of Number Buttons: The Number Buttons are active for a brief period of time after the Status Button is pushed. When they are active, they are lit. Any pushing of the Number Buttons while they are not lit will have no effect.

Incorrect Entry of PIN Code: The Status Button must be pushed before entering a PIN Code. If three attempts are made with incorrect codes, the true PIN Code will be rendered inoperable and can only be reset with the entry of a sixteen digit master code. This feature prevents someone from trying randomly to find the right code.

Battery Removal: Removing the battery while the gun is locked will not allow the gun to be unlocked.

NOTE: Any times used are arbitrary and different times can be selected by SIG. It is not recommended that they be able to be set by the purchaser.

SIG Swiss Industrial Company
Business Unit Small Arms
CH-8212 Neuhausen am Rheinfall/Switzerland



Fax +41 52 / 674 66 01

Phone +41 52 / 674 61 11

TELEFAX

Page 1 / 1

MEC Ltd.
1783 Iron Works Road
Lexington, KY 40511
USA

Date: 12/04/97

Your ref.:

Our ref.:

Int. Fax Nr: +41 52 / 674 6601

Direct Ext.: +41 52 / 674 7392

Fax +1 606 299 7885

Dear Tony and Jonathan.

Thank you for your fax from November 25.

1. Sorry but we never received an invoice from you (if I remember correctly both of you were in Switzerland on August 22).
2. The payment you mention is not due upon delivery of the Functioning Prototype but according to the contract "upon invoice following approval at completion of Stage 2." This approval has not been made since our marketing people are not sure if we should introduce a PIN-code-based solution to the market. They also still discuss the features of a childproof gun and the timeframe for introducing it in the light of Clinton's gunlock decision.

Having that in mind we are not in the condition for continuing the project with you also since our ressources are limited and the project costs of additional 340 k\$ are very high.

Sincerely yours,

Dr. Dieter Strich

Rudolf Fuchs

Exhibit 16

AFFIDAVIT OF SEAN GARNETT

Comes the undersigned, Sean Garnett, and after first being duly sworn, states as follows:

1. I am the President and sole owner of Shadowsand, Inc..
 2. MEC, Ltd. employed Shadowsand Inc. to create an electronics board according to their functional specifications to serve as an electronic actuator for several prototypes of an electromechanical safety/locking system for a firearm.
 3. In June 1997, MEC created and built functional prototypes of two different designs of an electromechanical safety/locking system for a firearm. One was designated as the "trigger block" design, and the other was designated as the "trigger bar pulldown" design. Initially, I connected both prototypes up to an on/off box switch run by batteries, and connected to the prototypes by an external cable. I was present in June 1997 when both of these prototypes were test fired and videotaped.
 4. In July and August 1997, I created and built an electronics board that demonstrated how the trigger block prototype would function in its marketing version with a keypad actuator. The functional specifications for the keypad performance were given to me by MEC. The prototype was connected to the board by means of an external cable. I wrote the "Instructions for Operation" that went with the board. This prototype and board was used for the demonstration to the SIG Board of Directors.
 5. In November and December at MEC's request, I arranged for the production of the miniaturized version of the electronics. On 11/20/97 through the vendor, *Your Electronics Source* as the manufacturer's representative of *AGASIS*, a California company, I ordered the necessary miniaturized circuit boards for the marketing prototype of the trigger block design.
- Copies of the job quotation, job order, and order confirmation from *Your Electronics Source* are attached hereto at **Exhibit 1**, along with the supporting invoice and customer approval form from *AGASIS*.

Exhibit 18

6. Those boards were delivered on November 27, 1997.

7. MEC, in July 1997 at my request, had previously ordered some additional motors and gearheads needed for the marketing prototypes from *MicroMo Electronics, Inc.*

A copy of the invoice for those motors and gearheads from *MicroMo Electronics, Inc.* is attached hereto at **Exhibit 2**.

8. On October 11, 1997 I detailed some preliminary manufacturing specifications for the keypad.

A copy of those preliminary specifications is attached hereto at **Exhibit 3**.

9. I ordered some additional component parts that would be used in populating the miniaturized circuit boards from *Digi-Key Corporation* on 11/21/97.

A copy of that *Digi-Key Corporation* invoice is attached hereto at **Exhibit 4**.

10. I proceeded to build several completed and populated circuit boards.

11. MEC had finalized the keypad specification and furnished same to *Elite Sales & Technology Ltd.*, a North Carolina company with production capabilities in Taiwan, for the manufacturing requirement.

A copy of that specification dated 11/24 is attached hereto at **Exhibit 5**.

12. The marketing prototype, a SIG 239 handgun with the trigger built up and drilled, the frame modified, the motor, gear, and spring-loaded pin in position, and the protective box machined and attached, was delivered to me by MEC in mid December 1997. I embedded the electronics, lacking only the keypad to complete the marketing prototype.

13. Shortly after Christmas 1997, MEC supplied me with the keypad obtained through *Elite Sales & Technology Ltd.*

A copy of *Elite's* order form dated 11/28/97, and subsequent invoice showing the Fed Ex shipping on 12/23/97 are attached hereto at **Exhibit 6**.

14. I immediately completed assembling the marketing prototype. We tested the marketing prototype and it worked fine.

This was the same marketing prototype that MEC took with them to the Shot Show on January 25, 1998, and the same marketing prototype that was later tested by the Kentucky State Police.

The electromechanical design configuration of the marketing prototype was the same as that used in the functional prototype, the difference between the two prototypes being that the electronics and power supply were external on the functional prototype, and miniaturized and integrated into the marketing prototype.


Further the affiant saith not.


Sean Garnett

Commonwealth of Kentucky
County of Fayette

Subscribed, sworn to, and acknowledged before me by Sean Garnett on this the 8th day of July 2003.

My Commission Expires: 3-6-2006


Notary Public, State of Kentucky

Your Electronics Source

Manufacturers' Representative

2539 Cedar Links Drive • Medford, Oregon 97504

Phone (541) 734-4712 • FAX (541) 734-4718

TO Dean Corbett

DATE 11/20/97

COMPANY Snowsend, Inc.

FROM Jeane Holt

ORDER CONFIRMATION

PER THE FOLLOWING INFORMATION:

PURCHASE ORDER # MECP2A B PURCHASE DATE 11/20/97

PART NUMBER MLC PHOTO 2 REV

MANUFACTURER AGASIS

QTY	UNIT COST	EXT. COST	SHIP DATE	TO SHIP VIA	DOCK DATE
20-50	LOT	\$ 1,200.00	11/21/97	FEDX Overnight	11/21/97

TOOLING \$ 200.00 TEST \$ 250.00 PHOTO No Charge

IF ANY OF THE ABOVE INFORMATION IS INCORRECT, PLEASE CONTACT Y.E.S.
AS SOON AS POSSIBLE.

YOUR ELECTRONICS SOURCE AND AGASIS
SINCERELY APPRECIATE THIS OPPORTUNITY TO BE OF SERVICE TO YOU.

0.00 21-0-124

REP. FIRM FOR
AGENTS

REQ. NO MECP2A	DATE 11/20/97
RESALE NUMBER (IF APPLICABLE) N/A	

TO:
YOUR ELECTRONICS SOURCE
2539 CEDAR LINKS DRIVE
MEDFORD, OREGON 97504
(541) 734-4712, FAX (541) 734-4718

SHIP TO: ATT: SEAN GARNETT
SHADOWSAND, INC.
568 LONGVIEW DR
LEXINGTON, KY 40503
(606)277-7208

SHIP VIA FEDERAL EXPRESS PRIORITY OVERNIGHT SATURDAY DELIVERY	<input checked="" type="checkbox"/> Prepaid <input checked="" type="checkbox"/> Collect	F.O.B. POINT MORGAN HILLS, CA	TERMS NET 30	DATE REQUIRED IN LEX. 11/22/97
------------------------------------------------------------------------	--------------------------------------------------------------------------------------------	----------------------------------	-----------------	-----------------------------------

QUANTITY	DESCRIPTION	UNIT	AMOUNT
1 100	PCB # MEC P2A-B, MEC PROTO 2 FULL BODY GOLD 2 DAY TURN (~25-50/LOT)	LOT	1200 00
1	TOOLING CHARGE		200 00
1	ELECTRICAL TEST		250 00
1	SHIPPING CHARGE FOR FEDEX OVERNIGHT SATURDAY DELIVERY		TBD

PLEASE SEND 2 COPIES OF YOUR INVOICE.
Order is to be entered in accordance with prices, delivery, and specifications shown above.
Notify us immediately if you are unable to ship complete order by date specified.

Adams
NC 3811

Sean Garnett (SEAN GARNETT)
AUTHORIZED BY

AUTHORIZED BY

Purchase Order

Purchase Order
D.C. A 1-P-2 or 4

Your Electronics Source

Manufacturers' Representative

2539 Cedar Links Drive • Medford, Oregon 97504

Phone (541) 734-4712 • FAX (541) 734-4718

QUOTATION

TO Sean Barnett FROM Jeane Holt
 COMPANY Shadowland, Inc DATE 11/20/97
 MANUFACTURER AGASTS TIME

DESCRIPTION		# OF MFG DAYS	PRICE EACH	EXTENDED PRICE
MFG price				
quoted full body gold	min lot - 25-50	3 days	107	\$ 1,000.00
		2 days	107	\$ 1,200.00
\$1450				

TOOLING \$ 200.00 ELECTRICAL TEST \$ 250.00 PHOTO No Charge

OTHER

John 4921

Quotations are based on information available at the time of quote. Any changes to the original information may affect pricing. Acceptance of lead time is subject to shop capacity. Lead time begins after receipt of applicable manufacturing tools and photo plot approvals. Manufacturers liability is limited to the cost of

Exhibit 1-A 3-05



18450 Sutter Blvd.
Morgan Hill, CA 95037
Phone: 408.778.7733
Fax: 408.782.0099
http://www.agasis.com

INVOICE

NO. 0971756-IN
INV. DATE 11/22/97
CUST. NO. SHADO
PAGE: 1

S
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Shadowsand, Inc.
568 Longview Dr.
Lexington KY 40503

S
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T
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Shadowsand, Inc.
568 Longview Dr.
Lexington KY 40503

ORDER NUMBER:
ORDER DATE:
SHIP DATE: 11/22/97

CUSTOMER P.O.	SHIP VIA	F.O.B.	TERMS	REP	ORDERED BY			
MECP2A-B	FEDEX		C.O.D.					
ITEM NO.	PART NO. / DESCRIPTION	REV. #	ORDERED	SHIPPED	B/O	PRICE	EXT. AMOUNT	T
	MEC PROTO 2		1	1		1,200.00	1,200.00	
	(Billed as 1 Lot)		30	30				
	Tooling						200.00	
	Test						250.00	
SHADOWSAND CHECK# 116								

☐ DISK ☒ ARTWORK ☐ SOLDER SAMPLE ☐ CERTS ☐ CROSS SECTION
☐ OTHER _____

NET INVOICE: 1,650.00
LESS DISCOUNT: .00
FREIGHT: 29.50
SALES TAX: .00

1,679.50

TOTAL DUE:

A 1 1/2% PER MONTH (18% PER ANNUM) SERVICE CHARGE WILL BE ASSESSED ON ALL PAST DUE ACCOUNTS.
MANUFACTURERS LIABILITY IS LIMITED TO THE COST OF THE PRINTED CIRCUIT BOARDS ONLY.

Exhibit 1 - 13485

AGASIS

18450 Sutter Boulevard
Morgan Hill, CA 95037

Phone (408) 778-7733 Fax (408) 782-0099 Modem (408) 782-0089

CUSTOMER FILM APPROVAL FORM

DATE: 11-20-97 CUSTOMER: SHADOW SADD

PART NUMBER: Mr. P... REV:

FILMS PLOTTED

COMPONENT / PRIMARY SIDE ☒

SOLDER / SECONDARY SIDE ☒

PRIMARY SIDE SOLDER MASK ☒

SECONDARY SIDE SOLDER MASK ☒

PRIMARY SIDE LEGEND ☒

SECONDARY SIDE LEGEND ☒

PRIMARY SIDE PASTE MASK ☐

SECONDARY SIDE PASTE MASK ☐

INTERNAL LAYER #4 ☐

INTERNAL LAYER #5 ☐

INTERNAL LAYER #6 ☐

INTERNAL LAYER #7 ☐

INTERNAL LAYER #8 ☐

INTERNAL LAYER #9 ☐

INTERNAL LAYER #10 ☐

INTERNAL LAYER #11 ☐

PHOTOTECH COMMENTS: TOP AND BOTTOM

0.003" LINE WIDTH

PHOTOTECH APPROVAL: GEORGE DATE: 11/20/97

OTHER COMMENTS / CHANGES REQUIRED

- 1) 0.006" LEGEND LINE WIDTH ~~CHANGE~~ CHANGE IS OK.
- 2) BOTGOLD PLOT IS CORRECT BUT NOT NEEDED, SINCE WE
AGREED TO FULL BODY ^{HARDGOLD} PLATING INSTEAD OF SELECTIVE.

APPROVAL: Sam Yarnett

DATE: 11/20/97

FILM APPROVAL FORM MAY BE FAXED TO (408) 782-0099

Exhibit 1 - P 5 of 5

MicroMo Electronics, Inc.

FAULHABER GROUP

Miniature DC Drive Components

14881 Evergreen Avenue, Clearwater, Florida 33762

Phone: (813) 572-0131 Fax: (813) 573-5918

NBR 115927

*** INVOICE ***

ILL: MEC LTD
271 WEST SHORT STREET
SUITE 312
LEXINGTON KY 40507

SHIP: MEC LTD
568 LONGVIEW DR
LEXINGTON KY 40503

OUR	606-255-2880	DATE	DATE
O. NUMBER	SHIPPED VIA	SHIPPED	INVOICED
257	RPD FED EX NL	07/07/97	07/07/97

QUANTITY	QUANTITY	UNIT	
TEM	ORDERED	PART NUMBER / DESCRIPTION	SHIPPED
1	1	0816P003S	1
2	5	08/1 64:1	5
3	5	08/1 256:1	5

PRICE	AMOUNT
47.25	47.25
56.50	282.50
67.55	337.75

VISA SHAWN GARNETT

TERMS: NET 30 DAYS F.O.B. CLEARWATER, FLORIDA. A SERVICE CHARGE OF 1.5% PER MONTH WILL BE CHARGED ON ALL PAST DUE AMOUNTS OVER 30 DAYS. ALL RETURNS AND/OR CANCELLATIONS ARE SUBJECT TO A MINIMUM 15% RESTOCKING CHARGE, DEPENDING ON PRODUCT. ALL CLAIMS AND RETURNS MUST BE ACCOMPANIED BY THIS INVOICE NUMBER. SEE SALES TERMS AND CONDITIONS ENCLOSED.

EMIT TO: ACCOUNTING DEPT.
MICRO MO ELECTRONICS
14881 EVERGREEN AVENUE
CLEARWATER FL 33762

PACKING	0.00
SHIPPING	0.00

RD# 77067	PAYABLE IN U.S. DOLLARS TOTAL	\$667.50
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Mo Electronics, Inc.

Exhibit 2
ORIGINAL

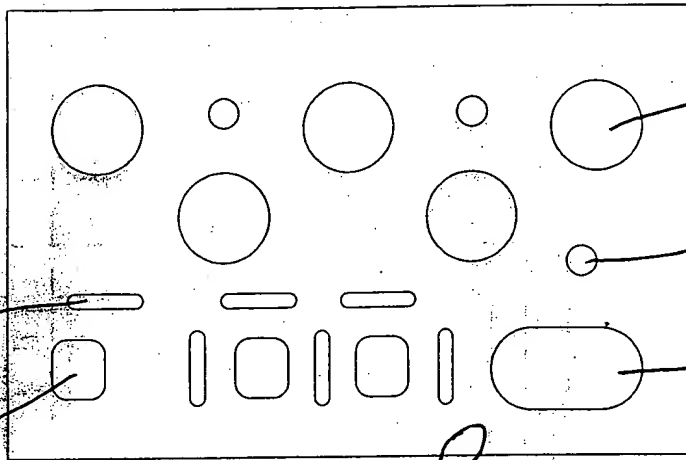
F-PD-001/2
Revision: 02

A

B

C

D



KEYCAP A
x5

DOME C x3

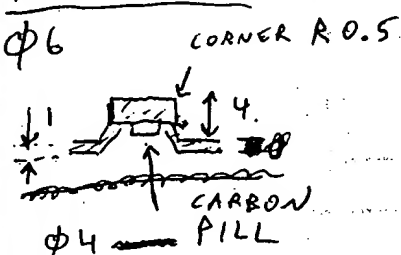
KEYCAP B

EDGE F x4

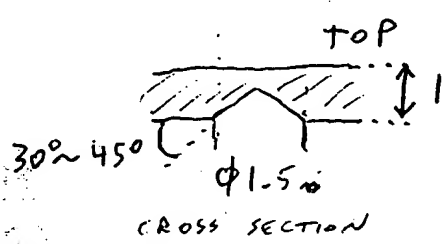
TRENCH D
x6

INDICATOR E
x3

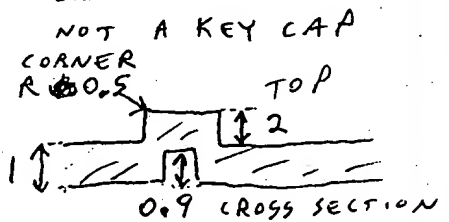
KEYCAP A



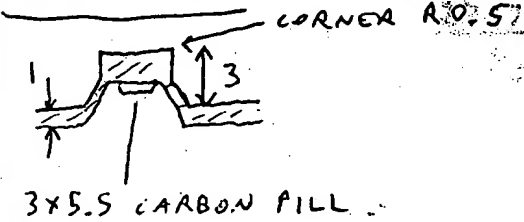
DOME C



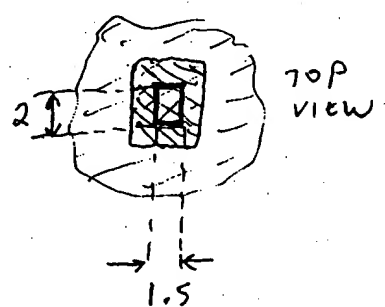
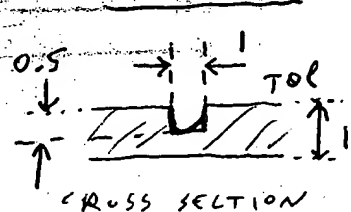
INDICATOR E



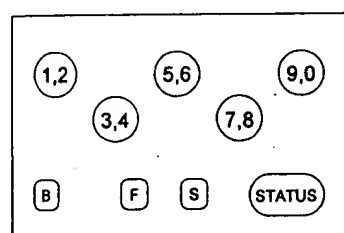
KEYCAP B



TRENCH D

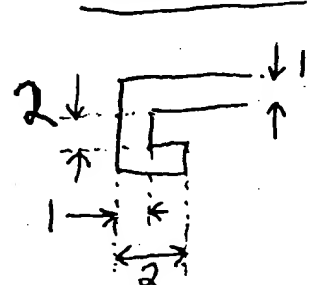


ALL DIM. IN MILLIMETERS



LEGEND

EDGE F




 MICROGRAFX		
Keypad		
Drawn By: S.Garnett for MEC Ltd.		
Date: 10/11/97	Scale:	Page: 1/3

Exhibit 3 - 191004

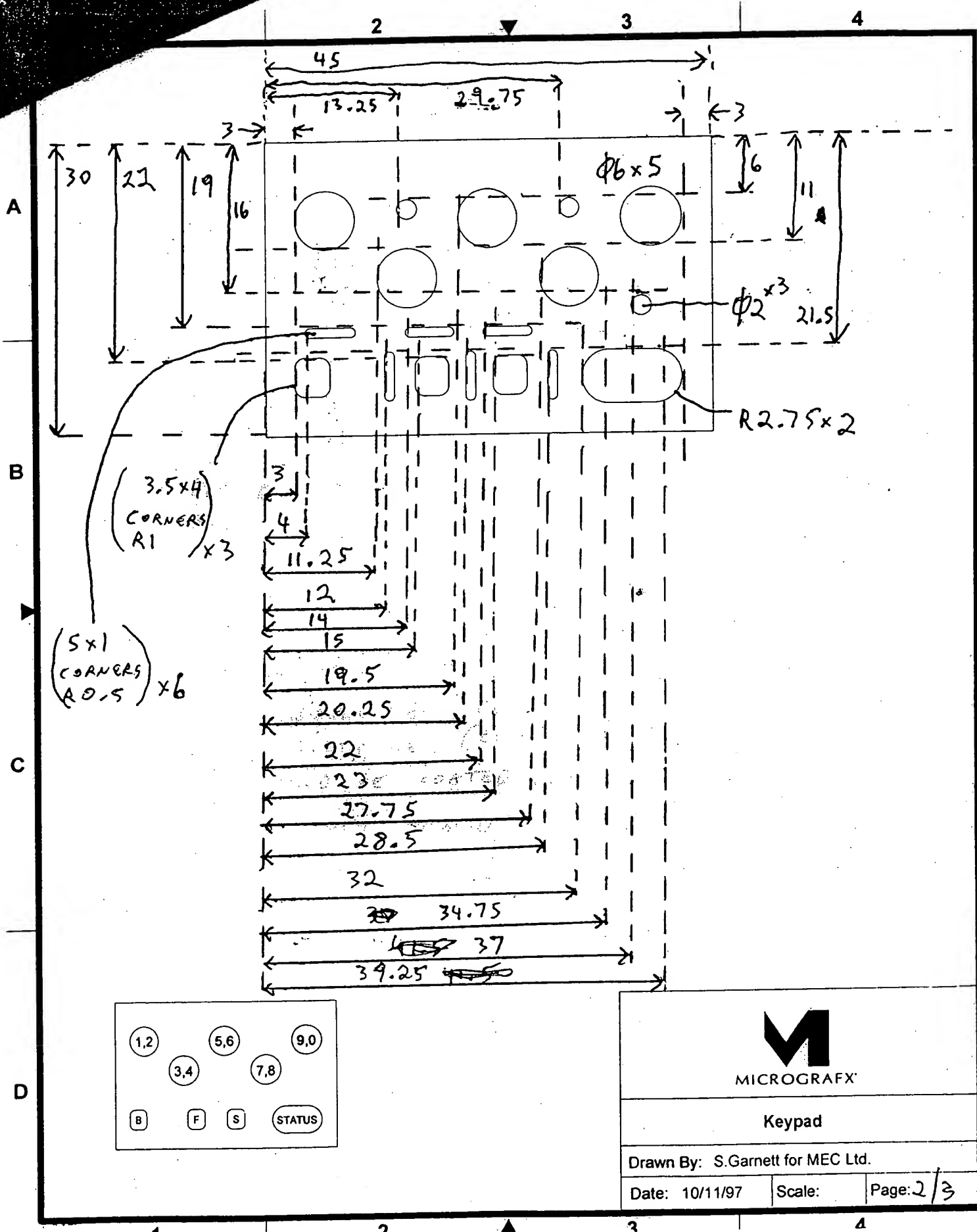
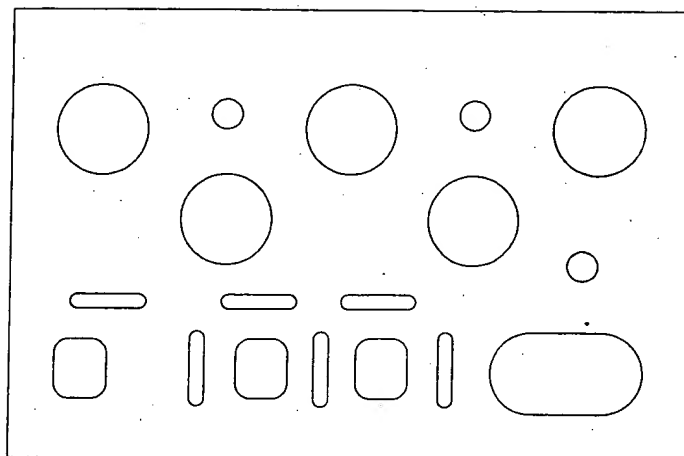


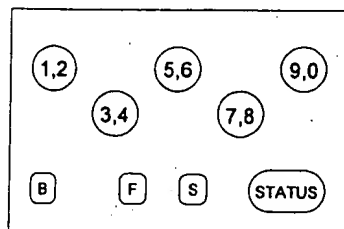
Exhibit 3 - P 2 of 4



KEYCAPS A : STROKE = 1.
 A & B FORCE = 125 ~ 150g
 SNAP RATIO \approx 50%

~~KEYCAPS B : STROKE =~~

- MATERIAL SHOULD BE CHOSEN FOR OIL & SOLVENT RESISTANCE. (CLEAR/TRANSLUCENT)
- GRAPHICS SHOULD BE COATED FOR WEAR & OIL RESISTANCE (SEALPLAST)
- AIR CHANNELS NOT SHOWN, BUT SHOULD BE KEY TO KEY. NO PERFORATIONS ARE ALLOWED. (MUST BE SEALED)
- CARBON PILL CONDUCTOR



MICROGRAFX

Keypad

Drawn By: S.Garnett for MEC Ltd.

Date: 10/11/97

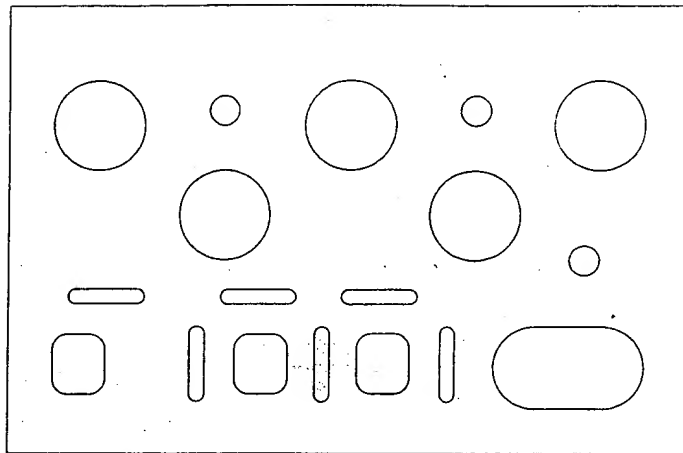
Scale:

Page: 3/3

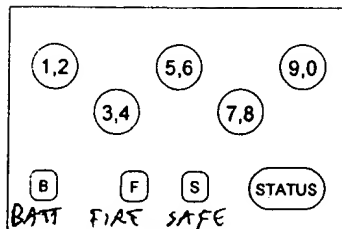
2

3

4



KEYPAD LEGEND



BEZEL LEGEND (NOT PART OF KEYPAD)



MICROGRAFX

Keypad BEZEL LEGEND

Drawn By: S.Garnett for MEC Ltd.

Date: 10/11/97

Scale:

Page: 1 / 1

Exhibit 3-194 of 4

Digi-Key

CORPORATION

Customer Service 1-800-344-4539
Orders 1-800-344-4539
Fax 218-681-3380

Duplicate Invoice # 6659714

701 Brooks Ave. S., P.O. Box 677, Thief River Falls, MN 56701-0677

Sold To: SEAN GARNETT
SHADOWSAND
568 LONGVIEW DR
LEXINGTON KY 40503-0000

CUSTOMER 1165591

Bill To: SEAN F GARNETT
SHADOWSAND INC
568 LONGVIEW DR
LEXINGTON KY 40503-0000

Terms Mastercard	Invoice Date 21-NOV-1997	Page 1
Customer Purchase Order MECP2A		Sales Order 5370228
Back Orders Accepts to 21-DEC-1997		Account 393611
Entered By / Date A0J0/21-NOV-1997	Shipped Via XPRI	Ship Date 21-NOV-1997
Easy to Remember: 1-800-DIGI-KEY		

6659714

For Office Use Only	Received PHONE	Prev Sales Order 0	Prev Invoice 0	Billing BILL SHIP	Pack List No. 1	Printing Date 21-NOV-1997	Currency Type: US
----------------------------	-----------------------	------------------------------	--------------------------	-----------------------------	---------------------------	-------------------------------------	-----------------------------

A0IB

Idx	Box	Ordered	Cancelled	Shipped	Item Number	Description	Back Order	Unit Price US \$	Amount US \$
1	1	100	0	100	PCC223BVCT-ND	CAP 22000PF 25V CERAMIC 0603 SMD		.15500	15.50
2	1	20	0	20	P.56RCT-ND	RES .56 OHM 1/8W 1% 1206 SMD		.95100	19.02
3	1	30	0	30	743-083-R101CT-ND	RES ARRAY 100 OHM 8TERM 4RES SMD		.15100	4.53
4	1	20	0	20	742-083-R104CT-ND	RES ARRAY 100KOHM 8TERM 4RES SMD		.10900	2.18
5	1	30	0	30	742-083-R103CT-ND	RES ARRAY 10K OHM 8TERM 4RES SMD		.10900	3.27
6	1	20	0	20	742-083-R102CT-ND	RES ARRAY 1K OHM 8TERM 4RES SMD		.10900	2.18
7	1	100	0	100	PCC220ACVCT-ND	CAP CERAMIC 22PF 50V 0603 SMD		.07500	7.50
9	1	20	0	20	PCS1226CT-ND	CAP 22UF 6.3V TANT TE SERIES		.76100	15.22
10	1	25	0	25	24LC01B/SN-ND	EEPROM CMOS SERIAL 128X8 SO-8		.45000	11.25
11	1	100	0	100	2N7002NCT-ND	MOSFET N-CHN 60V 7.5 OHM SOT23		.42000	42.00
12	1	20	0	20	SE3203-ND	32.768 KHZ CYL XTAL C-004R TYPE		1.12500	22.50
14	1	50	0	50	P540CT-ND	LED GREEN THRU PCB TYPE SMD		.37000	18.50
15	1	50	0	50	P541CT-ND	LED RED THRU PCB TYPE SMD		.37000	18.50
16	1	20	0	20	P516CT-ND	LED GREEN S TYPE LOW CUR SMD		.36000	7.20
17	1	20	0	20	P490CT-ND	LED RED S-TYPE GULL WING SMD		.33000	6.60
18	1	20	0	20	P517CT-ND	LED AMBER S TYPE LOW CUR SMD		.36000	7.20
19	1	25	0	25	LM4041BIM3-1.2-ND	IC 1.2 VOLT REF +/- .2% SOT-23		2.17520	54.38
20	1	20	0	20	NDS8926CT-ND	MOSFET DUAL N-CH 20V SO-8		4.32000	86.40
21	1	30	0	30	NDS9933CT-ND	MOSFET DUAL P-CH -20V SO-8		3.60000	108.00
22	1	30	0	30	BZX84C3V9ZXCT-ND	SMD ZENER DIODE 3.9V SOT-23		.54000	16.20
					BOX 1 SHIPPED KOPP	WEIGHT 0 LBS 10 OZS		SHIPPING FEE	20.25
					BOX ID 432299421202			SATURDAY DELIVERY FEE	10.00
								TOTAL BOX COST	30.25
					TOTAL INVOICED				468.13
					SHIPPING CHARGES APPLIED				30.25
					** CHARGES SUBTOTAL **				498.38
					TOTAL CHARGED TO CREDIT CARD				498.38
									US \$
					YOUR CREDITCARD HAS BEEN CHARGED THE ABOVE INDICATED AMOUNT				
					THE ORDER IS COMPLETE				
					Ship To:				
					SHADOWSAND				
					568 LONGVIEW DR				
					LEXINGTON KY 40503-0000				

Claims for pricing errors, shortages, and defective product must be reported within 30 days of invoice date.

FEI No: 41-1234968 YOU MUST REMIT SALES TAX (IF ANY) DIRECTLY TO YOUR STATE, EXCEPT MINNESOTA.

Exhibit 4

JON

MEC Keypad Part Number MEC-0011 General Specification

The keypad is a translucent silicone rubber keypad with designed to be used with backlighting. It consists of 6 compressible keys and 3 non-compressible LED window protrusions. The compressible keys should have a stroke of 1mm +/- 0.1 mm and have a maximum force of 140 grams +/- 15 grams. The snap ratio should be in the range of 40-50%. Graphics should be coated for wear/chemical resistance. Air channels are not shown but are allowed on the backside from key to key. No through perforations are allowed (sealed application). Carbon conductors of the highest quality should be used to achieve minimum possible resistance on switch closure.

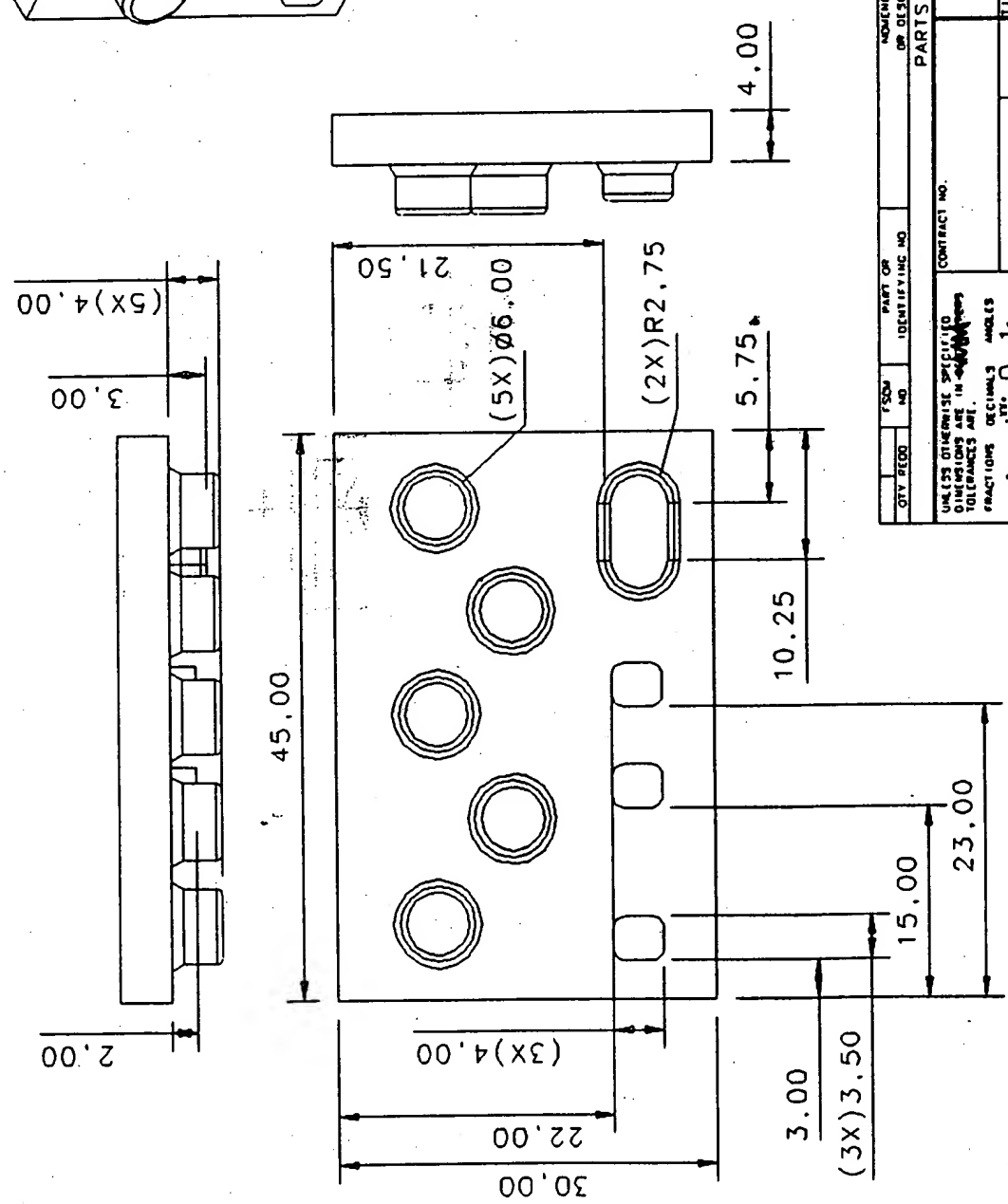
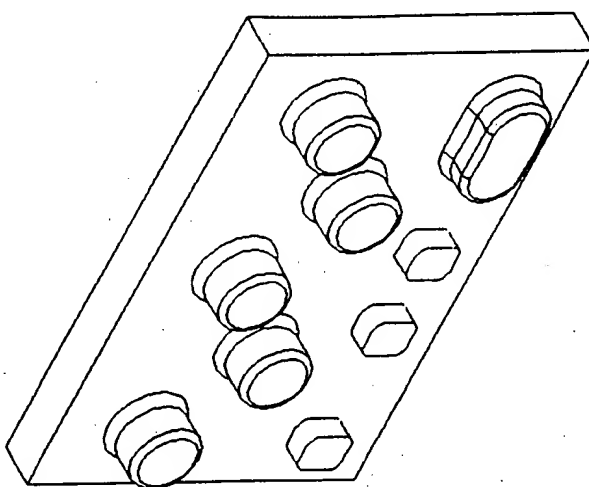
Drawing Notes:

General:

Compressible keys have 0.5mm radius on key top edge, LED window protrusions have a sharp top edge. See attachment for legend information.

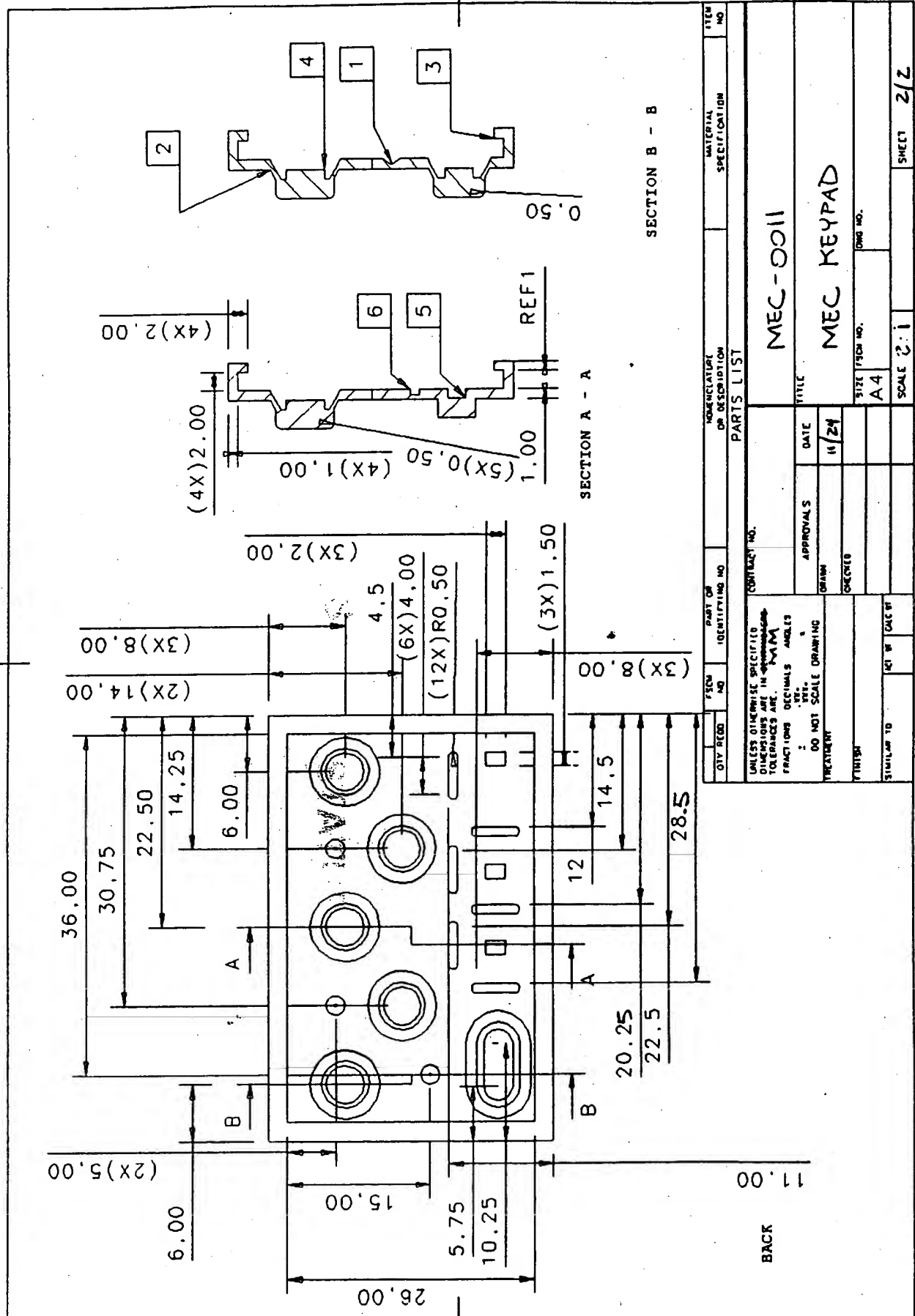
1. Conical depressions (3X), 2mm in diameter, 30 degree chamfer.
2. Web to be designed as per the force specification but should not extend more than 1mm beyond the solid key periphery,
3. Feature to extend the full perimeter of the keypad.
4. Carbon conductors are 4mm diameter (5X) and 3X5.5 (1X).
5. LED relief features (3X) to be 0.9mm in depth.
6. Channels (6X) to be 1mm wide and 0.5mm in depth. Positioning dimensions to channels are to the theoretical centerline of 0.5 mm radius end features.

Exhibit 5 - Pg 1 of 5



QTY REQD	FSDM NO	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ITEM NO
PARTS LIST					
CONTRACT NO.			MEC-0011		
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. FRACTIONS DECIMALS ANGLES			TITLE		
: 0.12			MEC KEYPAD		
DO NOT SCALE DRAWING			DATE 11/24		
TREATMENT			APPROVALS		
FINISH			CHECKED		
SIMILAR TO			SIZE FSDM NO. A4		
NOT IN CASE OF			DRAWING NO.		
			SCALE 2:1		
			SHEET 1/2		

Exhibit 5 - Pg 2 of 5



QTY REQD	ITEM NO	PART OR IDENTIFYING NO	QUANTITY	DESCRIPTION	MATERIAL SPECIFICATION	ITEM NO
PARTS LIST						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:			CONTRACT NO.			
FRACTIONS DECIMALS ANGLES			DATE			
DO NOT SCALE DRAWING			APPROVALS			
TREATMENT			CHECKED			
FINISH			DATE			
SIMILAR TO			SCALE 2:1			
SHEET			2/2			

MEC-0011
 MEC KEYPAD

SIZE 1/8" x 1/4" x 1/8" DRG NO.
 A4

Exhibit 5 pg 3 of 5

ELITE SALES & TECHNOLOGY, LTD.

4904 Comella Drive Raleigh, NC 27603-4204 USA

Phone: 919 772-7042 / Fax: 919 772-8073 / E-mail: elitesales@elitesales.com / http://www.elitesales.com

FACSIMILE QUOTATION FORM

Date:	Friday, November 28, 1997	No. of Pages:	1 of 2
To:	Mr. Tony Hancock	Ref. No.:	ES-11287A
Company:	MEC, Inc	Phone No.:	606 299-2870
Address:	1783 Iron Works Road Lexington, KY 40511	Fax No.:	606 299-7885
Subject:	Elite Quotation # 11166 P/N MEC-0011	Code:	455

Dear Tony

Listed below is our quotation covering your recent request for pricing. Please carefully review the notes section to confirm that all required product features will be provided. If quotation comparisons are made, please pay close attention to the listed product features and the number of production tool cavities as these items will affect unit pricing.

TOOLING

Proto-Type Tool	\$ 2,200.00	Production Tool	\$ 5,000
No. of Samples	10 (included)	No. of Cavities	48 (48 pcs. included)
Lead Time	25 - 30 Days	Lead Time for First Article Parts	30 - 35 Days

UNIT PRICE

Proto-Type Samples	Price Each	Lead Time	Prod. Qty.	Price Each	Lead Time
1 - 50	\$ 6.00	25 - 30 Days	1,000	\$ 0.31	30 - 35 Days
			5,000	\$ 0.26	30 - 35 Days
			10,000	\$ 0.23	30 - 35 Days
			25,000	\$ 0.22	30 - 35 Days
			50,000	\$ 0.21	30 - 35 Days

(All Lead times are expressed as business days shipped from Taiwan and order placement)

NOTES: Shipment Terms - FOB Taiwan Shipment Method: FedEx
 One (1) base material color and One (1) printing color Conductive carbon pills
 Parts will be supplied to print / notes requirements
Landed USA pricing furnished upon request. / Please review attached Feature Chart
 Release quantity changes may effect pricing. Ship dates are bus. days from order placement. C&F / CIF pricing includes std shipping methods only. Special shipping chgs. invoiced separately. All rubber parts are manufactured to standard "Ultra-Precise" tolerance levels. Price breaks are based on new orders only not the accumulated quantities of existing PO(s).

TERMS: Net 30 (with approved credit) 50% of tooling charge due at order placement. Balance due upon receipt of proto-type samples and/or first article parts. Quoted pricing will be firm for thirty (30) days only. New / first time orders must be submitted with three (3) Trade and one (1) bank reference(s).

Elite Sales & Technology, Ltd. acts as an independent United States sales agent for domestic and international manufacturers and suppliers. Elite Sales, at no time and in no manner may be held responsible for claims regarding defective parts, delayed shipments or any other dispute involving these represented manufacturers or suppliers. By accepting Elite's quotation and issuing a purchase order, the customer agrees to these conditions. Elite Sales will always make every effort to assist the customer in matters concerning disputes and advertised product warranty.

Thank you for the opportunity to offer this quotation. If accepted, every effort will be made to supply the very best in quality parts and customer service. We will always represent your company's best interest to our suppliers.

Exhibit 5 - Pg 4 of 5

FROM ELITE SALES TECH 619 770 8073

ELITE'S QUOTED KEYPAD FEATURES

Elite Quotation Number 11166

Quotation Date

11/28/97

Page 2

This chart is provided to explain different keypad features that your application requires. Please review, particularly if quotation comparisons are made. Elite is confident that our pricing will be very competitive if the same keypad features are quoted by all suppliers.

✓	PRODUCTION TOOL CAVITY NUMBER Generally, the higher the number of cavities the lower the unit cost but the higher the tool cost. The number of tool cavities can be limited by the individual keypad size. When selecting the number of tool cavities the supplier/toolmaker will consider what is in the best interest of the customer and what is feasible.
✓	MATERIAL DUROMETER: (Hardness) <u>OIL + SOLVENT RESISTANCE</u> The higher the durometer number the harder the material. Generally, keypad/keytop durometers range from 50° to 80° durometers. Some keypads may require "dual durometers" which refers to the keypad base being one hardness and the keytop being generally harder and possibly a different color. Dual durometer requirements will dramatically affect pricing.
✓	MATERIAL COLOR: Generally listed as <u>translucent</u> or colored. Almost any color is available if color chart reference number is provided. If colored, the number of different colors will affect pricing.
✓	PRINTING/GRAPHIC COLOR: <u>BLACK</u> Almost any color is available if color chart reference number is provided. The number of different colors will affect pricing.
✓	CONDUCTIVE CONTACTS: <u>CARBON PILL</u> Available conductive contact types are <u>conductive ink</u> , conductive pill, gold and silver. Conductive pills are by far the most popular. Type and number per key will affect pricing. Keypads can also be supplied with no conductive contacts.
✓	AIR CHANNELS: An air path from <u>key to key</u> and/or to the keypad edge. This allows the key switch to return to its normal position after being depressed. This feature will not significantly increase the price.
	MOUNTING BOSS: An alignment feature molded to the keypad bottom. Mounting boss will aid in the keypad alignment with the circuit board and/or bezel. This feature will affect pricing.
	LASER ETCHED PRINTING TECHNOLOGY: Generally selected when keypad back-lighting is required. This is a several step process and draws more material when the light should only penetrate the etch pricing.
	KEYTOP OVERCOAT: Clear silicone ink applied over the printed graphic. Two coats can be applied and will extend the printing life. This overcoat will affect pricing.
✓	SEALPLAST PROTECTIVE COATING: Shown to be one of the best available protective coatings available. This spray technology can be supplied in a matte or glossy finish and will increase the printing life by some 15 times. It also prevents moisture and oils penetration. Sealplast also removes the "rubber" feel and provides a smooth finish. This technology will affect pricing depending on overall keypad size.
	KEYPAD MEMBRANE ASSEMBLY: Standard keypad with an attached domed membrane panel. Conductive contacts can be etched carbon, silver or gold. The membrane is aligned and attached by the keypad manufacturer (important) and provides a very low profile keypad with good "tactile feel". This feature will dramatically affect pricing.
	EPOXY KEYTOPS: Clear epoxy resin molded to keytop for an improved cosmetic appearance and extended printed life. This technology will dramatically affect pricing.

Elite 5-19575



ELITE SALES & TECHNOLOGY LTD.
 4904 Cornelia Drive Raleigh NC 27603-4204 USA
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INVOICE

12/30/97

1857

MEC, LTD.
 1783 Iron Works Rd.
 Lexington, KY 40511

SAME

332-1

Net 30

1/29/98

JSF

12/23/97 FED EX

FOB Taiwan

TRACK NO.

1246

1

Prototype Tool
 P/N MEC-0011

1

2,200.00

2,200.00

2

Prototype Samples (No charge)
 P/N MEC-0011

10

0.00

0.00

NOTES:

Customer's PO# 332-1 is
 now complete.

PLEASE NOTE:

Requested special shipping may be invoiced
 separately. Waybill Number and Customer's
 Purchase Order Number will be referenced.

Elite Sales & Technology, Ltd. acts as an independent United States sales agent for Domestic and International manufacturers. Elite Sales at no time and in no manner may be held responsible for claims regarding defective parts, delayed shipments or any other dispute involving these manufacturers. By accepting Elite's quotation, and issuing a purchase order, the customers agree to these conditions. Elite Sales will always make every effort to assist the customer in matters concerning product warranty.

\$2,200.00

THANK YOU FOR YOUR BUSINESS..... and PROMPT PAYMENT

AFFIDAVIT OF AUSTIN D. PYLE

Comes the undersigned, Austin D. Pyle, and after first being duly sworn, states as follows:

1. I am the President and sole owner of Speciality Machining Inc.

2. MEC, Ltd. employed Speciality Machining Inc. to modify existing commercially available SIG handguns to accommodate an electromechanical locking/safety system of their design.

3. In June 1997, I did the machine work as directed by MEC and built functional prototypes of two different designs of an electromechanical safety/locking system for a firearm.

One was designated as the "trigger block" design, and the other was designated as the "trigger bar pulldown" design.

Both prototypes were connected to a power supply by means of a cable.

The trigger block design incorporated a spring loaded pin driven by an output shaft on a gearhead connected to a very small motor. Upon activation, the pin was driven into (or out of) a trigger modified to accept the pin. I built the spring loaded pin assembly, the altered trigger, and the retention bracket, and modified the frame to accept the design. I built the keypad box that contained all of the design. The keypad box in the functional prototype was cosmetic in nature because the electronics had yet to be miniaturized.

I did the machining to connect everything together.

4. I did all of the machining for the trigger bar pulldown version as well.

5. I was present in June 1997 when both of these prototypes were test fired and videotaped.

6. In the fall of 1997, I modified a SIG 239 handgun supplied by MEC to incorporate the trigger block design. This prototype, the "marketing prototype" was designed to be a model for what could be marketed. This prototype had functioning on-board miniaturized electronics and an integral power supply. Shadowsand Inc. had created and built the electronics board and MEC had

Exhibit 17


designed the keypad.

5. The keypad was the last of the elements to be supplied and it arrived right around Christmas 1997. I had the modified SIG 239 completed and Sean Garnett of Shadowsand, Inc did the final assembly. The prototype was complete and functioning with no problems in late December 1997 and early January 1998. Tony Hancock and Jonathan Buckley took that prototype to the Shot Show in January 1998 to show SIG even though MEC's contract had been terminated in December by SIG.

6. I personally did all of the machining on all the prototypes and designed and built the spring loaded pin assemblies. I have attached hereto some work notes on the spring loaded pin arrangement dated 7/20/97 (Exhibit A), on the keypad box for the marketing prototype (Exhibit B), and two detailed machining dimension drawings dated July 1997 done for me at my request by Jack Cassel on this project (Exhibit C). Jack Cassel also line engineering drawings of the details of the trigger block design at my request and direction, and MEC supplied those drawings to Dieter Strich and Rudolf Fuchs sometime in June 1997.

7. At no time in any of this work, did I receive any direction from SIG or incorporate anything into the trigger block design that didn't come from MEC or myself. Whatever we did in the way of design was our work alone.

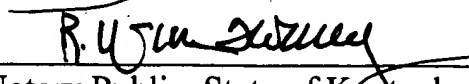
Further the affiant saith not.


Austin D. Pyle

Commonwealth of Kentucky
County of Fayette

Subscribed, sworn to, and acknowledged before me by Austin D. Pyle on this the 8th day of July 2003.

My Commission Expires: 3-6-2006

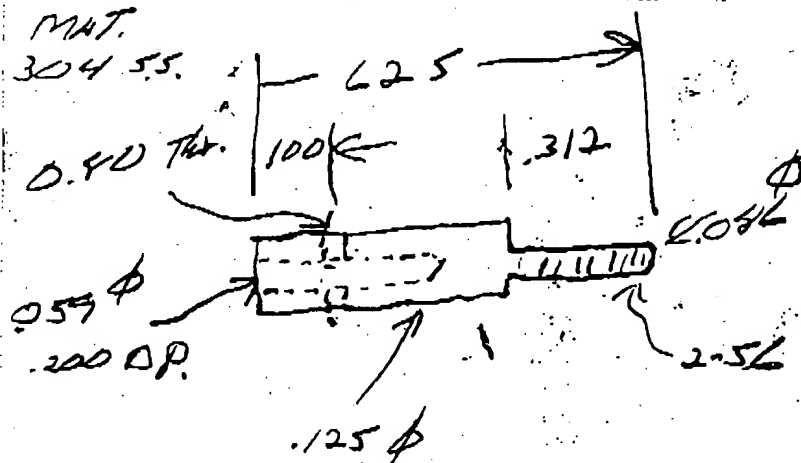

Notary Public, State of Kentucky



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UNIVERSITY
MOTOR COUPLER + LEAD SCREW
MAKE AS 1 piece 7/20/97

H.R. C.R., STAINLESS, ALUMINUM, BARS, SHAPES, SHEET & PLATE
SAWING, SHEARING AND BURNING

Exhibit A

07-22-97

026" TK. ON "COARSE" (344) EMERY CLOTH.
020" TK. ON "FINE" (PH3) EMERY CLOTH.

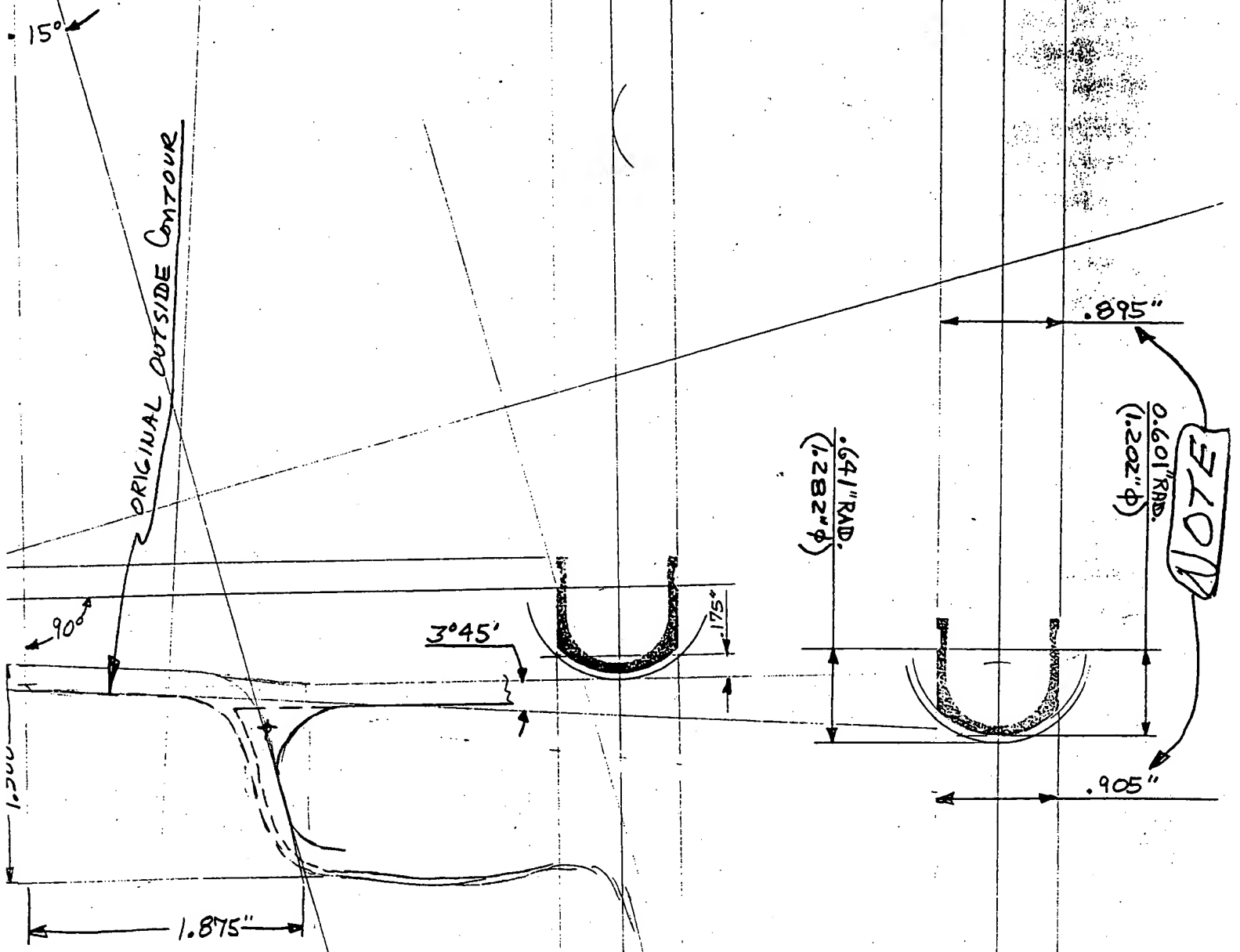


Exhibit C - Pg 1 of 2

J. CASSEL	
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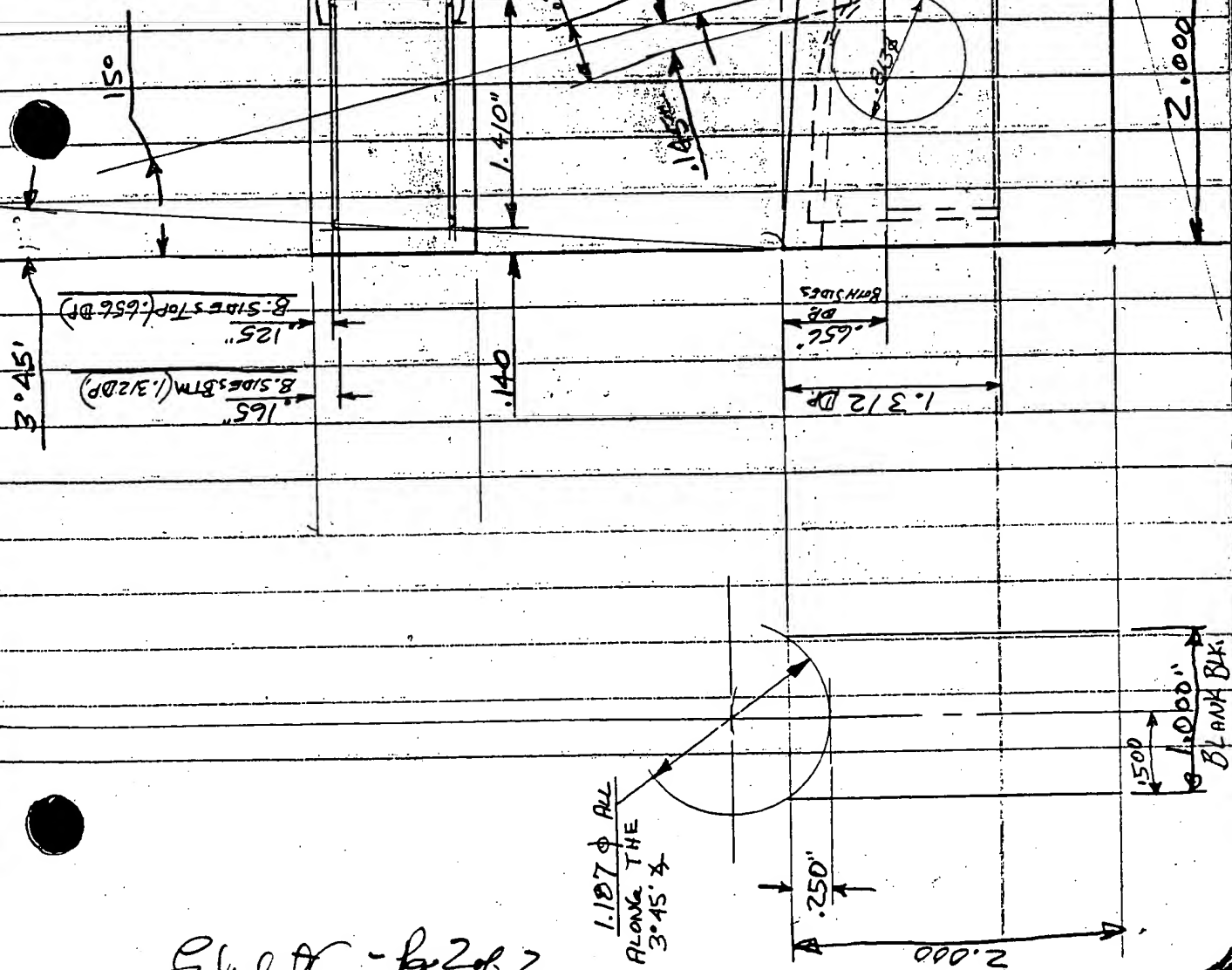


Exhibit - Pg 2 of 2



/ SIG Arms International AG / CH-8212 Neuhausen a. Rhf. / Tel. +41 52 674 65 65 /
Switzerland Fax +41 52 674 65 50
<http://www.sig.ch>

MEC Ltd.
1783 Iron Works Road
Lexington, KY 40511

USA

Your ref.
Our ref. DS
Direct ext. +41 52 / 674 7392

E-mail dstrich@sig.ch
Document

19.01.98

Return of documents

Dear Tony and Jonathan:

As announced in our letter of December 19, 1997 please find enclosed the documents and materials you requested for return. The gun will be shipped to you as soon as we have the export permit.

Yours sincerely

Dr. Dieter Strich

Rudolf Fuchs

Exhibit 20 - B 1 of 4



Lieferschein

Messtechnik Blatter AG
Hauptstr. 20B
3128 Rümligen

Lieferschein-Nr. **81057764**
Auftrags-Nr./Datum 59932/21.01.1998
Auftraggeber-Nr. 6303
Unsere Bestellung w33052118
vom 01.12.1997
Unsere Ref. Angeli Marco
Tel.: ++41 052 / 674 63 03
Fax.: ++41 052 / 674 64 01

22. Januar 1998

Versandart Post
Versicherung durch uns gedeckt
Station
Lieferdatum 22.01.1998

Auftraggeber
Messtechnik Blatter AG
Hauptstr. 20B
CH-3128 Rümligen

Spediteur

Sie erhalten gem. Bestellung W33052118 zum Überprüfen:

Bez. der Sendung	Menge Verpackung	Netto kg	Brutto kg	Dimension in cm		
SIG 81057764/01	1 PAKET	0.100	0.200	16 x	11 x	7

Pos.	Materialnummer Bezeichnung	Menge
------	-------------------------------	-------

10.	SD12-2 Reparatur: Drehmomentschlüssel 60-260Ncm SIG-Nr. P 50	1 ST
-----	--------------------------------------------------------------------	------

Ursprungsland/Pos.Nr.: Kein Land
10

Während des Transportes vorgekommene Beschädigungen oder Verluste sind durch die Empfänger amtlich feststellen zu lassen.
Allfällige Beanstandungen betr. Menge, Transportschäden und Grobkontrolle der Qualität sind bitte innert 5 Tagen ab Empfangsdatum anzubringen. Später eingehende Beanstandungen können nicht mehr berücksichtigt werden.
Bei Rücksendungen und Rückfragen bitte unbedingt die Belegnummer angeben.
Send. Best. Datum

Salubert 20-19 2004



Proforma-invoice

MEC Ltd.
Attn.: Tony A. Hancock
1783 Iron Works Road
Lexington, KY 40511
USA

Invoice-no. **91057343**
Delivery from Neuhausen
Delivery note-no./Date 81057715/01/20/1998
Order-no./Date 59876/01/20/1998
Customer-no. 287012
Your order *
of 01/20/1998
Our ref. Grosshans Andreas
Tel.: ++41 052 / 674 61 97
Fax.: ++41 052 / 674 64 18

22. January 1998

Consignee
MEC Ltd.
Attn.: Tony A. Hancock
1783 Iron Works Road
Lexington, KY 40511
USA

Means of transport DHL
Insurance covered by us
Station
Delivery date 01/22/1998

Forwarding agent DHL SA
Urdorf

Desc. of consignment	quantity Packing	Net kg	Gross kg	Dimension in cm		
SIG 81057715/01	1 PARCEL	2.900	3.500	36 x	36 x	20

Item	Part id. Description	Price unit	Price Quantity	Total USD
10	34930200	1 PCE	150.00 USD 1 PCE	150.00

Documents:

- Summary of Articles
- Proposed Safe Gun 01/16/97
- Status Report 3/31/97
- Status Report 3/31/97
- Status Report 4/30/97
- Letter (including drawings) dated 05/24/97
- Fax (including drawings) dated 05/25/97
- Fax (including drawings) dated 05/27/97
- Fax (including drawings) dated 06/18/97
- Fax (including drawings) dated 06/19/97
- Fax (including pictures) dated 06/22/97
- Fax (including pictures) dated 06/23/97
- Fax (including pictures) dated 08/06/97
- 12 photos
- 4 pictures (black/white)
- 10 pictures (colored)
- Instruction for Operation dated 08/20/97.
(including 4 photos)

Any loss or damage occurring in transit is to be notified by the consignee immediately to the carrier for official inspection.
Any complaints should be lodged within 5 days from date of receipt, otherwise they cannot be accepted.

By return of goods and further inquiries, we should be much obliged if you would quote our identification code.
Spec.: Benz Reto

Exhibit 20 - Pg 3 of 4



Proforma-invoice

MEC Ltd.
1783 Iron Works Road
Lexington, KY 40511

Date/page 01/22/1998/2
Invoice-no. 91057343
Customer-no. 287012

Item	Part id. Description	Price unit	Price Quantity	Total USD
------	-------------------------	------------	-------------------	--------------

- Fax datet 10/28/97

Material:

- 2 Videocassettes
- 1 Panel
- 2 Wires
- 2 Chips
- Electrical Circuit

Custom value

USD 150.00
=====

Country of orig./ltm. no.: Switzerland
10

Price: Incoterms 1990 CIP Lexington

FREE OF CHARGE - VALUE FOR CUSTOMS PURPOSES ONLY

SIG Arms AG


Herbert Bianchi
Administration Manager

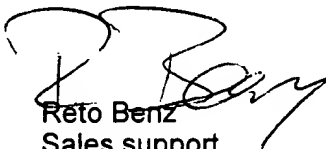

Reto Benz
Sales support

Exhibit 20 - Pg 404

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